1997 Index
Proceedings of the IEEE
Vols. 83-85

This index covers all technical items - papers, correspondence, reviews, etc. - that appeared in this periodical during 1997, and items from previous years that were commented upon or corrected in 1997.

The Author Index contains the primary entry for each item, listed under the first author's name, and cross-references from all coauthors. The Subject Index contains several entries for each item under appropriate subject headings, and subject cross-references.

It is always necessary to refer to the primary entry in the Author Index for the exact title, coauthors, and comments/corrections.

AUTHOR INDEX

A

Abed-Meraim, K., Wanzhi Qiu, and Yingbo Hua. Blind system identification; *PROC Aug 97* 1310-1322

Abidi, A.A. Low-power radio-frequency ICs for portable communications; *PROC Apr 95* 544-569

Abu-Mostafa, Y.S. Review of "Introduction to the Theory of Neural Computation" (Hertz, J., et al.; 1991); *PROC May 96* 799

Aggarwal, J.K., *see* Nandhakumar, N., *PROC Jan 97* 147-163

Ahmed, H.M., R. Callon, A.G. Malis, and J. Moy. IP switching for scalable IP services; *PROC Dec 97* 1984-1997

Aizawa, K., and T.S. Huang. Model-based image coding advanced video coding techniques for very low bit-rate applications; *PROC Feb 95* 259-271

Akasaki, I., and C. Wetzel. Future challenges and directions for nitride materials and light emitters; *PROC Nov 97* 1750-1751

Akay, M. Review of "Virtual Reality Technology" (Burdea, G., and Coiffet, P.; 1994); *PROC Sep 95* 1294

Alard, M., *see* Le Floch, B., *PROC Jun 95* 982-996

Aldroubi, A., *see* Unser, M., *PROC Apr 96* 626-638

Alexander, W.E., D.S. Reeves, and C.S. Gloster, Jr. Parallel image processing with the block data parallel architecture; *PROC Jul 96* 947-968

Alford, M.G., *see* Liggins, M.E., II, *PROC Jan 97* 97-109

Alouini, M.-S., S.A. Borgsmiller, and P.G. Steffes. Channel characterization and modeling for Ka-band very small aperture terminals; *PROC Jun 97* 981-997

Ambrose, B.E., and R.M. Goodman. Neural networks applied to traffic management in telephone networks; *PROC Oct 96* 1421-1429

Andreou, A.G. Review of "Analog VLSI Implementation of Neural Systems" (Mead, C., and Ismail, M., Eds.; 1989); *PROC Oct 95* 1430-1431

Antony, R.T. Database support to data fusion automation; *PROC Jan 97* 39-53

Arabshahi, P. Review of "Fundamentals of Artificial Neural Networks" (Hassoun, M.H.; 1995); *PROC Jun 96* 906-907

Arbesser-Rastburg, B.R., and A. Paraboni. European research on Ka-band slant path propagation; *PROC Jun 97* 843-852

Armstrong, E.H. Some recent developments in the audion receiver; *PROC Apr 97* 685-697

Armstrong-Helouvry, B., *see* Thomas, D.E., *PROC Mar 95* 407-421

Arnon, S., and N.S. Kopeika. Laser satellite communication network-vibration effect and possible solutions; *PROC Oct 97* 1646-1661

Asai, S., and Y. Wada. Technology challenges for integration near and below 0.1 μm; *PROC Apr 97* 505-520

Asaida, T., *see* Hashimoto, Y., *PROC Jul 95* 1032-1043

Asakura, T., *see* Iwai, T., *PROC May 96* 765-781

Atlas, L.E., G.D. Bernard, and S.B. Narayanan. Applications of time-frequency analysis to signals from manufacturing and machine monitoring sensors; *PROC Sep 96* 1319-1329

August, D.I., *see* Hwu, W.W., *PROC Dec 95* 1625-1640

Awwal, A.A.S., *see* Karim, M.A., *PROC Jun 96* 814-827

Azmoodeh, M., and R. Davison. Performance management of public ATM networks-a scaleable and flexible approach; *PROC Oct 97* 1639-1645

B

Badami, V., *see* Bonissone, P.P., *PROC Mar 95* 450-465

Baglietto, P., M. Maresca, M. Migliardi, and N. Zingirian. Image processing on high-performance RISC systems; *PROC Jul 96* 917-930

Bakircioglu, H., *see* Cramer, C., *PROC Oct 96* 1529-1543

Bandyopadhyay, S., *see* Roychowdhury, V.P., *PROC Apr 97* 574-588

Banerjee, D., *see* Borella, M.S., *PROC Aug 97* 1274-1307

Bard, J.F. Review of "Heuristic Scheduling Systems with Applications to Production Systems and Project Management" (Morton, T.E., and Pentico, D.W.; 1993); *PROC Feb 96* 324-325

Barben, J., *see* Gelenbe, E., *PROC Oct 96* 1355-1357

Barker, T.T. Review of "Developing Online Help for Windows" (Boggan, S., et al.; 1993); *PROC Jun 95* 997-998

Barr, R.C., *see* Ideker, R.E., *PROC Mar 96* 331-333

Barry, D.T., *see* Wood, J.C., *PROC Sep 96* 1281-1294

Barry, J.R., *see* Kahn, J.M., *PROC Feb 97* 265-298

Bar-Shalom, Y., *see* Yeddanapudi, M., *PROC Jan 97* 80-96

Baselt, D.R., G.U. Lee, K.M. Hansen, L.A. Chrisey, and R.L. Colton. A high-sensitivity micromachined biosensor; *PROC Apr 97* 672-680

Bass, R.W. Review of "Kalman Filtering: Theory and Practice" (Grewal, M.S., and Andrews, A.P.; 1993); *PROC Feb 96* 321-324

Bastiaansen, H., *see* van der Wal, K., *PROC Dec 97* 1947-1957

Battini, F., *see* Colaitis, M.-J., *PROC Jul 96* 1019-1037

Bauer, R., *see* Davarian, F., *PROC Jun 97* 807-809

Bauer, R. Ka-band propagation measurements: an opportunity with the Advanced Communications Technology Satellite (ACTS); *PROC Jun 97* 853-862

Baumann, S.B., *see* Mingui Sun, *PROC Sep 96* 1302-1311

Beaver, J.D., and V.N. Bringi. The application of S-band polarimetric radar measurements to Ka-band attenuation prediction; *PROC Jun 97* 893-909

Bernard, G.D., *see* Atlas, L.E., *PROC Sep 96* 1319-1329

Berrou, C., *see* Le Floch, B., *PROC Jun 95* 982-996

Bez, R., *see* Pavan, P., *PROC Aug 97* 1248-1271

Bhat, P.B., *see* Cho-Li Wang, *PROC Jul 96* 931-946

Biing-Hwang Juang, *see* Pitton, J.W., *PROC Sep 96* 1199-1215

Bijaoui, A., E. Slezak, F. Rue, and E. Lega. Wavelets and the study of the distant Universe; *PROC Apr 96* 670-679

Birdsall, C.K. Comments on "The pure electron discharge and its applications in radio telegraphy and telephony"; *PROC Sep 97* 1493-1495

Blahut, D.E., T.E. Nichols, W.M. Schell, G.A. Story, and E.S. Szurkowski. Interactive television; *PROC Jul 95* 1071-1085

Blidberg, D.R., *see* Meyrowitz, A.L., *PROC Aug 96* 1147-1164

Bluhm, M., *see* McMahan, S.C., *PROC Dec 95* 1664-1672

Blum, R.S., S.A. Kassam, and H.V. Poor. Distributed detection with multiple sensors I. Advanced topics; *PROC Jan 97* 64-79

Bo Li Xiao, *see* Haykin, S., *PROC Jan 95* 95-122

Bolle, R., *see* Jain, A.K., *PROC Sep 97* 1365-1388

Bolsens, I., H.J. De Man, B. Lin, K. Van Rompaey, S. Vercauteren, and D. Verkest. Hardware/software co-design of digital telecommunication systems; *PROC Mar 97* 391-418

Bonissone, P.P., V. Badami, K.H. Chiang, P.S. Khedkar, K.W. Marcelle, and M.J. Schutten. Industrial applications of fuzzy logic at General Electric; *PROC Mar 95* 450-465

Borella, M.S., J.P. Jue, D. Banerjee, B. Ramamurthy, and B. Mukherjee. Optical components for WDM lightwave networks; *PROC Aug 97* 1274-1307

Borgsmiller, S.A., *see* Alouini, M.-S., *PROC Jun 97* 981-997

Bourlard, H.A., *see* Morgan, N., *PROC May 95* 742-772

Bowles, J.B., and C.E. Pelaez. Application of fuzzy logic to reliability engineering; *PROC Mar 95* 435-449

Bowyer, K., *see* Stark, L., *PROC Nov 96* 1640-1656

Brailean, J.C., *see* Ozcelik, T., *PROC Feb 95* 304-316

Brailean, J.C., R.P. Kleihorst, S. Efstratiadis, A.K. Katsaggelos, and R.L. Lagendijk. Noise reduction filters for dynamic image sequences: a review; *PROC Sep 95* 1272-1292

Bringi, V.N., *see* Beaver, J.D., *PROC Jun 97* 893-909

Brittain, J.A. Scanning the Past: Harold A. Wheeler: A pioneer in radio and television; *PROC Jan 97* 200-201

Brittain, J.A. Scanning the past: Allen B. DuMont: A pioneer in electronic instruments, radio, and television; *PROC Dec 97* 2081-2082

Brittain, J.E. Scanning the past: Edith Clarke and power system stability; *PROC Jan 96* 90

Brittain, J.E. Scanning the past: Frederick E. Terman; *PROC Jan 95* 125-126

Brittain, J.E. The first issue of the Proceedings [intro. to reprint of issue]; *PROC Feb 97* 299-300

Brittain, J.E. Scanning the past: George H. Brown; *PROC Feb 95* 338

Brittain, J.E. Scanning the Past: Rudolf Kompfner and the traveling-wave tube; *PROC Feb 97* 340-341
Brittain, J.E. Scanning the Past: Lee de Forest and the amplifying audion; *PROC Mar 97* 476-477
Brittain, J.E. Scanning the past: William S. Lee and parallel hydro power; *PROC Mar 95* 490
Brittain, J.E. Scanning the past: John G. Brainerd and Project PX (ENIAC); *PROC Mar 96* 502
Brittain, J.E. The evolution of electrical and electronics engineering and the Proceedings of the IRE: 1938-1962; *PROC May 97* 762-797
Brittain, J.E. Scanning the Past: Shintaro Uda and the wave projector; *PROC May 97* 800-801
Brittain, J.E. Scanning the past: Fireless fireworks: Lighting at the Panama-Pacific Exposition in 1915; *PROC May 96* 802
Brittain, J.E. Scanning the past: William D. Coolidge and ductile tungsten; *PROC May 95* 828
Brittain, J.E. Scanning the past: Clarence W. Hansell and Philip S. Carter; *PROC Apr 96* 686
Brittain, J.E. Scanning the past: James K. Clapp; *PROC Apr 95* 698
Brittain, J.E. Scanning the Past: George W. Pierce: Radio pioneer and educator; *PROC Apr 97* 700-701
Brittain, J.E. Scanning the past: John R. Carson and conservation of radio spectrum; *PROC Jun 96* 909-910
Brittain, J.E. Scanning the past: Raymond A. Heising; *PROC Jun 95* 1003
Brittain, J.E. Scanning the Past: Edwin H. Colpitts: A pioneer in communications engineering; *PROC Jun 97* 1020-1021
Brittain, J.E. Scanning the past: William Le Roy Emmet and turboelectric engineering; *PROC Jul 96* 1053-1054
Brittain, J.E. Scanning the past: Donald B. Sinclair; *PROC Jul 95* 1107
Brittain, J.E. Scanning the past: Frank J. Sprague and the electrification of urban transportation; *PROC Jul 97* 1183-1184
Brittain, J.E. Scanning the past: Semi J. Begun and magnetic recording; *PROC Aug 96* 1189-1190
Brittain, J.E. Scanning the past: Ernst F.W. Alexanderson and transoceanic radio; *PROC Aug 95* 1202
Brittain, J.E. Scanning the Past: Harold S. Black and the negative feedback amplifier; *PROC Aug 97* 1335-1336
Brittain, J.E. Scanning the past: Irving Langmuir and the thermionic vacuum tube; *PROC Sep 95* 1298
Brittain, J.E. Scanning the past: Sergei A. Schelkunoff and antenna theory; *PROC Sep 96* 1344
Brittain, J.E. Scanning the Past: Ralph Bown and the golden age of propagation research; *PROC Sep 97* 1511-1513
Brittain, J.E. Scanning the past: Greenleaf W. Pickard and the eclipse network; *PROC Oct 95* 1434
Brittain, J.E. Scanning the Past: John R. Stone and the professionalization of communications engineering; *PROC Oct 96* 1573-1574
Brittain, J.E. Scanning the Past: Vladimir Karapetoff: A pioneer electrical engineering educator; *PROC Oct 97* 1662-1663
Brittain, J.E. Scanning the past: Benjamin G. Lamme and giant generators; *PROC Nov 95* 1594-1595
Brittain, J.E. Prolog to "Antennae"; *PROC Nov 96* 1615-1616
Brittain, J.E. Scanning the past: Harris J. Ryan and high voltage engineering; *PROC Nov 96* 1709-1710
Brittain, J.E. Scanning the past: Edward W. Herold: A leader in the development of color television; *PROC Nov 97* 1876-1877
Brittain, J.E. Scanning the past: Harald T. Friis; *PROC Dec 95* 1514
Brittain, J.E. The evolution of electrical and electronics engineering and the Proceedings of the IRE: 1913-1937; *PROC Dec 96* 1747-1772
Brittain, J.E. Scanning the past: Reginald A. Fessenden and the origins of radio; *PROC Dec 96* 1852-1853
Brodersen, R.W., *see* Chandrakasan, A.P., *PROC Apr 95* 498-523
Buchanan, D.A., *see* Yuan Taur, *PROC Apr 97* 486-504
Burks, A.W. Electronic computing circuits of the ENIAC; *PROC Jul 97* 1172-1182
Burlina, P., *see* Chellappa, R., *PROC Jan 97* 120-138
Burton, F., *see* Lyons, M.H., *PROC Oct 97* 1544-1555
Byeong Gi Lee, and Seok Chang Kim. Recent advances in theory and applications of scrambling techniques for lightwave transmission; *PROC Oct 95* 1399-1428

C

Callon, R., *see* Ahmed, H.M., *PROC Dec 97* 1984-1997
Campbell, J.P., Jr. Speaker recognition: a tutorial; *PROC Sep 97* 1437-1462
Campbell, P.M., *see* Snow, E.S., *PROC Apr 97* 601-611
Carmer, D.C., and L.M. Peterson. Laser radar in robotics; *PROC Feb 96* 299-320
Caruthers, F. Prolog to "Asynchronous design methodologies: An overview"; *PROC Jan 95* 67-68
Caruthers, F. Prolog to "Noise reduction filters for dynamic image sequences: A review"; *PROC Sep 95* 1270-1271
Caruthers, F. Prolog to "Recognizing object function through reasoning about partial shape descriptions and dynamic physical properties"; *PROC Nov 96* 1638-1639
Carwell, S.A., *see* Jenkins, J.M., *PROC Mar 96* 428-445
Catthoor, F., *see* Singh, D., *PROC Apr 95* 570-594
Cauley, G., *see* Hsiao-Dong Chang, *PROC Nov 95* 1497-1529
Caulfield, H.J., *see* Yao Li, *PROC May 96* 720-732
Cerrina, F. Application of X-rays to nanolithography; *PROC Apr 97* 644-651
Challapali, K., X. Lebegue, J.S. Lim, W.H. Paik, and P.A. Snopko. The Grand Alliance system for US HDTV; *PROC Feb 95* 158-174
Chand, S., and S.L. Chiu. Scanning the issue: Special issue on fuzzy logic with engineering applications [intro.]; *PROC Mar 95* 343-344
Chandrakasan, A.P., and R.W. Brodersen. Minimizing power consumption in digital CMOS circuits; *PROC Apr 95* 498-523
Changdon Kee, *see* Enge, P., *PROC Aug 96* 1063-1088
Chang Hsiao-Dong, *see* Hsiao-Dong Chang, *PROC Nov 95* 1497-1529
Chang Kim Seok, *see* Byeong Gi Lee, *PROC Oct 95* 1399-1428
Chao Yi-Chung, *see* Enge, P., *PROC Aug 96* 1063-1088
Chaparro, L.F., *see* El-Jaroudi, A., *PROC Sep 96* 1312-1318
Chapin Cutler, C. Forty years of molecular electronics; *PROC Jul 97* 1141-1143
Chapman, C.A., *see* Haykin, S., *PROC Sep 96* 1295-1301
Charbonnier, F.M. External defibrillators and emergency external pacemakers; *PROC Mar 96* 487-499
Chee-Yee Chong, *see* Liggins, M.E., II, *PROC Jan 97* 97-109
Chellappa, R., Qinfen Zheng, P. Burlina, C. Shekhar, and K.B. Eom. On the positioning of multisensor imagery for exploitation and target recognition; *PROC Jan 97* 120-138
Chellappa, R., C.L. Wilson, and S. Sirohey. Human and machine recognition of faces: a survey; *PROC May 95* 705-741
Chen, C.-T., *see* Lin, D.W., *PROC Feb 95* 175-193
Chen, T.-H. Review of "Engineering Applications of Correlation and Spectral Analysis" (Bendat, J.S., and Piersol, A.G.; 1993); *PROC Jan 95* 124
Chen-Ching Liu, *see* Vu, K.T., *PROC Nov 95* 1442-1455
Cheng, K.-Y. Molecular beam epitaxy technology of III-V compound semiconductors for optoelectronic applications; *PROC Nov 97* 1694-1714
Chen Hai-Wen, *see* Hai-Wen Chen, *PROC Jan 95* 39-66
Chen Wei, *see* Yuan Taur, *PROC Apr 97* 486-504
Cheron, B., *see* Colaitis, M.-J., *PROC Jul 96* 1019-1037
Chia, S. Review of "The GSM System for Mobile Communications" (Mouly, M., and Pautet, M.-B.); *PROC Jun 95* 999-1000
Chia-Chi Chu, *see* Hsiao-Dong Chang, *PROC Nov 95* 1497-1529
Chiang, K.H., *see* Bonissone, P.P., *PROC Mar 95* 450-465
Chiariglione, L. The development of an integrated audiovisual coding standard: MPEG; *PROC Feb 95* 151-157
Chin-Woo Tan, M. Varghese, P. Varaiya, and F.F. Wu. Bifurcation, chaos, and voltage collapse in power systems; *PROC Nov 95* 1484-1496
Chiu, S.L., *see* Chand, S., *PROC Mar 95* 343-344
Cho-Li Wang, P.B. Bhat, and V.K. Prasanna. High-performance computing for vision; *PROC Jul 96* 931-946
Chong Chee-Yee, *see* Liggins, M.E., II, *PROC Jan 97* 97-109
Choquette, K.D., and H.Q. Hou. Vertical-cavity surface emitting lasers: Moving from research to manufacturing; *PROC Nov 97* 1730-1739
Chou, S.Y. Patterned magnetic nanostructures and quantized magnetic disks; *PROC Apr 97* 652-671
Chrisey, L.A., *see* Baselt, D.R., *PROC Apr 97* 672-680
Chuang Gu, *see* Salembier, P., *PROC Jun 95* 843-857
Chu Chia-Chi, *see* Hsiao-Dong Chang, *PROC Nov 95* 1497-1529
Chuen-Tsai Sun, *see* Jang, J.-S.R., *PROC Mar 95* 378-406
Claffy, K., and T. Monk. What's next for Internet data analysis? Status and challenges facing the community; *PROC Oct 97* 1563-1571
Clarke, L.P., *see* Wei Qian, *PROC Oct 96* 1458-1473
Cochrane, P. Scanning the issue: Special issue on communications in the twenty-first century [intro.]; *PROC Oct 97* 1519-1522
Cochrane, P., *see* Henning, I., *PROC Oct 97* 1572-1581
Cohen, A., and J. Kovacevic. Wavelets: the mathematical background; *PROC Apr 96* 514-522
Cohen, L. // Preface to the special issue on time-frequency analysis; *PROC Sep 96* 1197-1198
Colaitis, M.-J., J.-L. Jumpertz, B. Guerin, B. Cheron, F. Battini, B. De Lescure, E. Gautier, and J.-P. Geffroy. The implementation of P^3I, a parallel architecture for video real-time processing: a case study; *PROC Jul 96* 1019-1037
Coleman, J.J. Metalorganic chemical vapor deposition for optoelectronic devices; *PROC Nov 97* 1715-1729
Collin, R.E. An introduction to the classic paper by M.I. Pupin [on antenna radiation resistance measurement]; *PROC Feb 97* 301-305
Colton, R.L., *see* Baselt, D.R., *PROC Apr 97* 672-680

Corkum, D.L., *see* McManamon, P.F., *PROC Feb 96* 268-298
Cornero, M., *see* Paulin, P.G., *PROC Mar 97* 419-435
Costa, A., A. De Gloria, P. Faraboschi, A. Pagni, and G. Rizzotto. Hardware solutions for fuzzy control; *PROC Mar 95* 422-434
Costantini, M., A. Farina, and F. Zirilli. The fusion of different resolution SAR images; *PROC Jan 97* 139-146
Cotaxis, N. The radio receiver saga: An introduction to the classic paper by Edwin H. Armstrong; *PROC Apr 97* 681-684
Couch, R.H., *see* Winker, D.M., *PROC Feb 96* 164-180
Cramer, C., E. Gelenbe, and H. Bakircloglu. Low bit-rate video compression with neural networks and temporal subsampling; *PROC Oct 96* 1529-1543
Crane, R.K., Xuhe Wang, D.B. Westenhaver, and W.J. Vogel. ACTS propagation experiment: experiment design, calibration, and data preparation and archival; *PROC Jun 97* 863-878
Crane, R.K., and A.W. Dissanayake. ACTS propagation experiment: attenuation distribution observations and prediction model comparisons; *PROC Jun 97* 879-892
Crane, R.K., *see* Mayer, C.E., *PROC Jun 97* 936-945
Crane, R.K., and P.C. Robinson. ACTS propagation experiment: rain-rate distribution observations and prediction model comparisons; *PROC Jun 97* 946-958
Crowcroft, J., *see* White, P.P., *PROC Dec 97* 1934-1946
Csiszar, I. Review of "Universal Compression and Retrieval" (Krichevsky, R.; 1994); *PROC Jun 95* 1000-1002
Culshaw, B., C. Michie, P. Gardiner, and A. McGown. Smart structures and applications in civil engineering; *PROC Jan 96* 78-86

D

Dahl, R.E., *see* Mingui Sun, *PROC Sep 96* 1302-1311
Dahleh, M., A. Peirce, H.A. Rabitz, and V. Ramakrishna. Control of molecular motion; *PROC Jan 96* 7-15
Dahmann, J.S., and D.C. Wood. Scanning the issue: Special issue on distributed interactive simulation [intro.]; *PROC Aug 95* 1111-1113
Daniel, M.M., and A.S. Willsky. A multiresolution methodology for signal-level fusion and data assimilation with applications to remote sensing; *PROC Jan 97* 164-180
Dar-Shyang Lee, *see* Srihari, S.N., *PROC Jul 96* 1038-1049
Dasarathy, B.V. Sensor fusion potential exploitation-innovative architectures and illustrative applications; *PROC Jan 97* 24-38
Da Silva, V.L., *see* Yadlowsky, M.J., *PROC Nov 97* 1765-1779
Daubechies, I., *see* Kovacevic, J., *PROC Apr 96* 507-509
Daubechies, I. Where do wavelets come from? A personal point of view; *PROC Apr 96* 510-513
Davari, B., R.H. Dennard, and G.G. Shahidi. CMOS scaling for high performance and low power-the next ten years; *PROC Apr 95* 595-606
Davarian, F., D.V. Rogers, and R. Bauer. Scanning the issue: Special issue on Ka-band propagation effects on earth-satellite links [intro.]; *PROC Jun 97* 807-809
Davarian, F., *see* Rogers, D.V., *PROC Jun 97* 810-820
Davie, B., *see* Rekhter, Y., *PROC Dec 97* 1973-1983
Davis, L.I., Jr., *see* Puskorius, G.V., *PROC Oct 96* 1407-1420
Davis, P.K. Distributed interactive simulation in the evolution of DoD warfare modeling and simulation; *PROC Aug 95* 1138-1155
Davison, R., *see* Azmoodeh, M., *PROC Oct 97* 1639-1645
Decina, M., and V. Trecordi. Convergence of telecommunications and computing to networking models for integrated services and applications; *PROC Dec 97* 1887-1914
Defevere, D.C., *see* Vanderwater, D.A., *PROC Nov 97* 1752-1764
de Forest, L. Recent developments in the work of the Federal Telegraph Company; *PROC Feb 97* 327-336
De Gaudenzi, R., F. Giannetti, and M. Luise. Advances in satellite CDMA transmission for mobile and personal communications; *PROC Jan 96* 18-39
De Gloria, A., *see* Costa, A., *PROC Mar 95* 422-434
Delanoy, R.L., *see* Verly, J.G., *PROC Feb 96* 126-163
De Lescure, B., *see* Colaitis, M.-J., *PROC Jul 96* 1019-1037
Deliso, E.M., *see* Yadlowsky, M.J., *PROC Nov 97* 1765-1779
Delogne, P. Radio in 1913: An introduction to the classic paper by L. de Forest [on telegraphy]; *PROC Feb 97* 323-326
De Man, H.J., *see* Bolsens, I., *PROC Mar 97* 391-418
Demassieux, N., *see* Pirsch, P., *PROC Feb 95* 220-246
De Micheli, G. Scanning the issue: Special issue on hardware/software co-design [intro.]; *PROC Mar 97* 347-348
De Michell, G., and R.K. Gupta. Hardware/software co-design; *PROC Mar 97* 349-365
DenBaars, S.P. Gallium-nitride-based materials for blue to ultraviolet optoelectronics devices; *PROC Nov 97* 1740-1749
Dennard, R.H., *see* Davari, B., *PROC Apr 95* 595-606
Depp, S.W., *see* Harris, E.P., *PROC Apr 95* 636-658
Deutsch, T.F. Lasers and optics in health care; *PROC Nov 97* 1797-1816
Director, S.W., P.K. Khosla, R.A. Rohrer, and R.A. Rutenbar. Reengineering the curriculum: design and analysis of a new undergraduate Electrical and Computer Engineering degree at Carnegie Mellon University; *PROC Sep 95* 1246-1269
Dissanayake, A.W., *see* Crane, R.K., *PROC Jun 97* 879-892
Dissanayake, A.W., Application of open-loop uplink power control in Ka-band satellite links; *PROC Jun 97* 959-969
Dissanayake, A.W., *see* Goldhirsh, J., *PROC Jun 97* 970-980
Dony, R.D., and S. Haykin. Neural network approaches to image compression; *PROC Feb 95* 288-303
Dorf, R.C. Review of "The World in 2020" (McRae, H.; 1994); *PROC Jan 96* 88-89
Dorf, R.C. Review of "World Class" (Kanter, R.M.; 1995); *PROC Jul 96* 1050-1051
Dorf, R.C., and M. Raitanen. The Balanced Scorecard: Translating Strategy into Action (Kaplan, R.S., and Norton, D.P.; 1996) [book review]; *PROC Sep 97* 1509-1510
Dorschner, T.A., *see* McManamon, P.F., *PROC Feb 96* 268-298
Dragonette, L.R., D.M. Drumheller, C.F. Gaumond, D.H. Hughes, B.T. O'Connor, Nai-Chyuan Yen, and T.J. Yoder. The application of two-dimensional signal transformations to the analysis and synthesis of structural excitations observed in acoustical scattering; *PROC Sep 96* 1249-1263
Draper, B.A., A.R. Hanson, and E.M. Riseman. Knowledge-directed vision: control, learning, and integration; *PROC Nov 96* 1625-1637
Dreher, R.D., *see* Warren, J.A., *PROC Mar 96* 468-479
Drumheller, D.M., *see* Dragonette, L.R., *PROC Sep 96* 1249-1263
Dudek, G.L. Environment representation using multiple abstraction levels; *PROC Nov 96* 1684-1704
Dufaux, F., and F. Moscheni. Motion estimation techniques for digital TV: a review and a new contribution; *PROC Jun 95* 858-876

E

Ebrahimi, T., E. Reusens, and Wei Li. New trends in very low bitrate video coding; *PROC Jun 95* 877-891
Eckert, J.P., Jr A survey of digital computer memory systems; *PROC Jan 97* 184-197
Edwards, B.E., *see* Melngailis, I., *PROC Feb 96* 227-267
Edwards, S., L. Lavagno, E.A. Lee, and A. Sangiovanni-Vincentelli. Design of embedded systems: formal models, validation, and synthesis; *PROC Mar 97* 366-390
Efstratiadis, S., *see* Brailean, J.C., *PROC Sep 95* 1272-1292
Egan, B., *see* Lyons, M.H., *PROC Oct 97* 1544-1555
Egger, O., Wei Li, and M. Kunt. High compression image coding using an adaptive morphological subband decomposition; *PROC Feb 95* 272-287
Einstein, J.R., *see* Ying Xu, *PROC Oct 96* 1544-1552
Ekmecic, I., I. Tartalja, and V. Milutinovic. A survey of heterogeneous computing: concepts and systems; *PROC Aug 96* 1127-1144
Eleftheriades, G. Review of "Dyadic Green Functions in Electromagnetic Theory" (Tai, C.-T.; 1994); *PROC Jun 95* 998-999
El-Jaroudi, A., M.S. Redfern, L.F. Chaparro, and J.M. Furman. The application of time-frequency methods to the analysis of postural sway; *PROC Sep 96* 1312-1318
Ellenbogen, J.C., *see* Goldhaber-Gordon, D., *PROC Apr 97* 521-540
Elliott, D.L. Review of "Stability Theory" (Parks, P.C., and Hahn, V.; 1993); *PROC May 96* 799-800
Enge, P., T. Walter, S. Pullen, Changdon Kee, Yi-Chung Chao, and Yeou-Jyh Tsai. Wide area augmentation of the Global Positioning System; *PROC Aug 96* 1063-1088
Enz, C.C., and G.C. Temes. Circuit techniques for reducing the effects of op-amp imperfections: autozeroing, correlated double sampling, and chopper stabilization; *PROC Nov 96* 1584-1614
Eom, K.B., *see* Chellappa, R., *PROC Jan 97* 120-138
Ephremides, A. Review of "The Collected Papers of Claude E. Shannon" (Sloane, N.J.A., and Wyner, A.D., Eds.; 1993); *PROC Oct 96* 1570-1571
Erdreich, L.S., *see* Foster, K.R., *PROC May 97* 733-746
Esaki, H., *see* Katsube, Y., *PROC Dec 97* 1998-2006
Esch, J. Prolog to "Control of molecular motion"; *PROC Jan 96* 6
Esch, J. Prolog to "Performance trends in high-end processors"; *PROC Jan 95* 18-19
Esch, J. Prolog to "Managing design data: The five dimensions of CAD frameworks, configuration management and product data management"; *PROC Jan 96* 40-41
Esch, J. Prolog to "Automatic on-line signature verification"; *PROC Feb 97* 213-214
Esch, J. Prolog to "Human and machine recognition of faces: A survey"; *PROC May 95* 704
Esch, J. Prolog to "Hypermedia data modeling, coding, and semiotics"; *PROC Jul 97* 1109-1110

Esch, J. Prolog to "Principles and methods of testing finite state machines - A survey"; *PROC Aug 96* 1089
Esch, J. Prolog to "Autonomous vehicles"; *PROC Aug 96* 1145-1146
Esch, J. Prolog to "Service disciplines for guaranteed performance service in packet-switching networks"; *PROC Oct 95* 1373
Esch, J. Prolog to "Environment representation using multiple abstraction levels"; *PROC Nov 96* 1682-1683
Esch, J. Prolog to "Quantum information processing: Cryptography, computation, and teleportation"; *PROC Dec 96* 1717-1718
Eto, Y., *see* Umemoto, M., *PROC Jul 95* 1044-1054

F

Falk, H. Prolog to "Detection of signals in chaos"; *PROC Jan 95* 94
Falk, H. Prolog to "Wireless infrared communications"; *PROC Feb 97* 263-264
Falk, H. Prolog to "Neural networks for statistical recognition of continuous speech"; *PROC May 95* 741
Falk, H. Prolog to "Discrete simulation of colored noise and stochastic processes and $1/f^{alpha}$ power law noise generation"; *PROC May 95* 800-801
Falk, H. Prolog to "Distributed multimedia systems"; *PROC Jul 97* 1061-1062
Falk, H. Prolog to "A survey of heterogeneous computing: Concepts and Systems"; *PROC Aug 96* 1124-1126
Falk, H. Prolog to "Reengineering the curriculum: Design and analysis of a new undergraduate electrical and computer engineering degree at Carnegie Mellon University"; *PROC Sep 95* 1244-1245
Falk, H. Prolog to "Protocol pruning"; *PROC Oct 95* 1356
Falk, H. Prolog to "Recent advances in theory and applications of scrambling techniques for lightwave transmission"; *PROC Oct 95* 1397-1398
Falk, H. Prolog to "Knowledge-directed vision: Control, learning, and integration"; *PROC Nov 96* 1623-1624
Fan Tso Yee, *see* Melngailis, I., *PROC Feb 96* 227-267
Faraboschi, P., *see* Costa, A., *PROC Mar 95* 422-434
Farge, M., N. Kevlahan, V. Perrier, and E. Goirand. Wavelets and turbulence; *PROC Apr 96* 639-669
Farina, A., *see* Costantini, M., *PROC Jan 97* 139-146
Farinacci, D., *see* Rekhter, Y., *PROC Dec 97* 1973-1983
Faybusovich, L. Review of "Optimization and Dynamical Systems" (Helmke, U., and Moore, J.; 1994); *PROC Jun 96* 907-908
Feil, J., *see* Helmken, H., *PROC Jun 97* 917-925
Feil, J., L.J. Ippolito, Jr., H. Helmken, C.E. Mayer, S. Horan, and R.E. Henning. Fade slope analysis for Alaska, Florida, and New Mexico ACTS propagation data at 20 and 27.5 GHz; *PROC Jun 97* 926-935
Feldkamp, L.A. Review of "Neural Networks: Current Applications" (Lisboa, P.G.J., Ed.; 1992); *PROC Jan 96* 87-88
Feldkamp, L.A., *see* Puskorius, G.V., *PROC Oct 96* 1407-1420
Feng Yutao, *see* Gelenbe, E., *PROC Oct 96* 1488-1496
Fischl, R.F., *see* Kwatny, H.G., *PROC Nov 95* 1456-1483
Fitzsimmons, E.A., and J.D. Fletcher. Beyond DoD: non-defense training and education applications of DIS; *PROC Aug 95* 1179-1187
Flamant, P.H., *see* Vaughan, J.M., *PROC Feb 96* 205-226
Fletcher, J.D., *see* Fitzsimmons, E.A., *PROC Aug 95* 1179-1187
Flynn, M.J. Introduction to "Influence of programming techniques on the design of computers"; *PROC Mar 97* 467-469
Fogel, D.B. Review of "Review of Computatational Intelligence Imitating Life" (Zurada, J.M., et al., Eds.; 1994); *PROC Nov 95* 1588-1591
Foster, K.R., L.S. Erdreich, and J.E. Moulder. Weak electromagnetic fields and cancer in the context of risk assessment; *PROC May 97* 733-746
Franca, J., A. Petraglia, and S.K. Mitra. Multirate analog-digital systems for signal processing and conversion; *PROC Feb 97* 242-262
Frank, D.J., *see* Yuan Taur, *PROC Apr 97* 486-504
Freed, C., *see* Melngailis, I., *PROC Feb 96* 227-267
Freuhauf, K. Review of "Software Quality Management - A Pro-active Approach" (Brinkworth, J.W.O.; 1992); *PROC Mar 95* 488-489
Friedman, L.J., *see* McManamon, P.F., *PROC Feb 96* 268-298
Fukinuki, T., *see* Umemoto, M., *PROC Jul 95* 1044-1054
Furman, J.M., *see* El-Jaroudi, A., *PROC Sep 96* 1312-1318

G

Gagnaire, M. An overview of broad-band access technologies; *PROC Dec 97* 1958-1972
Gallagher, D.M., *see* Hwu, W.W., *PROC Dec 95* 1625-1640
Gardiner, P., *see* Culshaw, B., *PROC Jan 96* 78-86
Garibay, R.A., Jr., *see* McMahan, S.C., *PROC Dec 95* 1664-1672
Garrett, R., *see* Reddy, R., *PROC Aug 95* 1188-1195
Gaumond, C.F., *see* Dragonette, L.R., *PROC Sep 96* 1249-1263
Gaunaurd, G.C., and H.C. Strifors. Signal analysis by means of time-frequency (Wigner-type) distributions-applications to sonar and radar echoes; *PROC Sep 96* 1231-1248
Gautier, E., *see* Colaitis, M.-J., *PROC Jul 96* 1019-1037
Gaynor, G.H. Review of "Strategic Technology Management" (Betz, F.; 1993); *PROC Mar 96* 500-501
Geddes, L.A., *see* Tacker, W.A., *PROC Mar 96* 355-365
Geffroy, J.-P., *see* Colaitis, M.-J., *PROC Jul 96* 1019-1037
Gehrke, W., *see* Pirsch, P., *PROC Feb 95* 220-246
Geisler, E. Meeting of the Minds: Creating the Market-Based Enterprise (Barabba, V.; 1995) [book review]; *PROC Aug 97* 1334
Gelenbe, E., and J. Barhen. Scanning the issue: Special issue on engineering applications of artificial neural networks [intro.]; *PROC Oct 96* 1355-1357
Gelenbe, E., Yutao Feng, and K.R.R. Krishnan. Neural network methods for volumetric magnetic resonance imaging of the human brain; *PROC Oct 96* 1488-1496
Gelenbe, E., *see* Cramer, C., *PROC Oct 96* 1529-1543
Geurts, W., *see* Goossens, G., *PROC Mar 97* 436-454
Giannetti, F., *see* De Gaudenzi, R., *PROC Jan 96* 18-39
Gibbings, C., *see* Henning, I., *PROC Oct 97* 1572-1581
Gi Lee Byeong, *see* Byeong Gi Lee, *PROC Oct 95* 1399-1428
Giles, R., and Tingye Li. Optical amplifiers transform long-distance lightwave telecommunications; *PROC Jun 96* 870-883
Gloster, C.S., Jr., *see* Alexander, W.E., *PROC Jul 96* 947-968
Godara, L.C. Applications of antenna arrays to mobile communications. I. Performance improvement, feasibility, and system considerations; *PROC Jul 97* 1031-1060
Godara, L.C. Application of antenna arrays to mobile communications. II. Beam-forming and direction-of-arrival considerations; *PROC Aug 97* 1195-1245
Goirand, E., *see* Farge, M., *PROC Apr 96* 639-669
Goldgof, D.B., *see* Stark, L., *PROC Nov 96* 1640-1656
Goldhaber-Gordon, D., M.S. Montemerlo, J.C. Love, G.J. Opiteck, and J.C. Ellenbogen. Overview of nanoelectronic devices; *PROC Apr 97* 521-540
Goldhirsh, J., B.H. Musiani, and W.J. Vogel. Cumulative fade distributions and frequency scaling techniques at 20 GHz from the Advanced Communications Technology Satellite and at 12 GHz from the digital satellite system; *PROC Jun 97* 910-916
Goldhirsh, J., B.H. Musiani, A.W. Dissanayake, and Kuan-Ting Lin. Three-site space-diversity experiment at 20 GHz using ACTS in the Eastern United States; *PROC Jun 97* 970-980
Goldschlag, D.M., *see* Landwehr, C.E., *PROC Dec 97* 2034-2051
Gonzalez, R. Hypermedia data modeling, coding, and semiotics; *PROC Jul 97* 1111-1140
Goode, B. Scanning the issue: Special issue on global information infrastructure [intro.]; *PROC Dec 97* 1883-1886
Gooden, D., *see* Wong, S., *PROC Feb 95* 194-219
Goodman, R.M., *see* Ambrose, B.E., *PROC Oct 96* 1421-1429
Goossens, G., *see* Paulin, P.G., *PROC Mar 97* 419-435
Goossens, G., J. Van Praet, D. Lanneer, W. Geurts, A. Kifli, C. Liem, and P.G. Paulin. Embedded software in real-time signal processing systems: design technologies; *PROC Mar 97* 436-454
Gordon, B.M., *see* Meng, T.H., *PROC Apr 95* 659-680
Goser, K.F., C. Pacha, A. Kanstein, and M.L. Rossmann. Aspects of systems and circuits for nanoelectronics; *PROC Apr 97* 558-573
Greenley, D., *see* Tremblay, M., *PROC Dec 95* 1653-1663
Gregory, D.A., *see* Yu, F.T.S., *PROC May 96* 733-752
Griwodz, C., *see* Wolf, L.C., *PROC Dec 97* 1915-1933
Grover, W.D. Self-organizing broad-band transport networks; *PROC Oct 97* 1582-1611
Gu Chuang, *see* Salembier, P., *PROC Jun 95* 843-857
Guerin, B., *see* Colaitis, M.-J., *PROC Jul 96* 1019-1037
Guillemain, P., and R. Kronland-Martinet. Characterization of acoustic signals through continuous linear time-frequency representations; *PROC Apr 96* 561-585
Gupta, R.K., *see* De Michell, G., *PROC Mar 97* 349-365
Gyllenhaal, J.C., *see* Hwu, W.W., *PROC Dec 95* 1625-1640

H

Haab, G.E., *see* Hwu, W.W., *PROC Dec 95* 1625-1640
Habara, K., *see* Ohzu, H., *PROC May 96* 782-798
Habib, I.W. Applications of neurocomputing in traffic management of ATM networks; *PROC Oct 96* 1430-1441
Hager, G. Review of "Active Vision" (Blake, A., and Yuille, A.; 1992); *PROC Mar 95* 484
Haines, D.E., *see* McRury, I.D., *PROC Mar 96* 404-416
Hai-Wen Chen Modeling and identification of parallel nonlinear systems: structural classification and parameter estimation methods; *PROC Jan 95* 39-66

Halici, U., and G. Ongun. Fingerprint classification through self-organizing feature maps modified to treat uncertainties; *PROC Oct 96* 1497-1512
Hall, D.L., and J. Llinas. An introduction to multisensor data fusion; *PROC Jan 97* 6-23
Hammerstrom, D.W., and D.P. Lulich. Image processing using one-dimensional processor arrays; *PROC Jul 96* 1005-1018
Hank, R.E., *see* Hwu, W.W., *PROC Dec 95* 1625-1640
Hansen, K.M., *see* Baselt, D.R., *PROC Apr 97* 672-680
Hanson, A.R., *see* Draper, B.A., *PROC Nov 96* 1625-1637
Hardesty, R.M., *see* Huffaker, R.M., *PROC Feb 96* 181-204
Harper, A. Review of "Concurrent Engineering Design" (Miller, L.G.; 1994); *PROC Mar 95* 485-486
Harris, E.P., S.W. Depp, W.E. Pence, S. Kirkpatrick, M. Sri-Jayantha, and R.R. Troutman. Technology directions for portable computers; *PROC Apr 95* 636-658
Hashimoto, A., *see* Shafi, M., *PROC Oct 97* 1622-1638
Hashimoto, Y., M. Yamamoto, and T. Asaida. Cameras and display systems; *PROC Jul 95* 1032-1043
Hauck, S. Asynchronous design methodologies: an overview; *PROC Jan 95* 69-93
Hayes, D.F. Review of "LAN Communications Handbook" (Simonds, F.; 1994); *PROC Sep 95* 1296-1297
Haykin, S., and Xiao Bo Li. Detection of signals in chaos; *PROC Jan 95* 95-122
Haykin, S., *see* Dony, R.D., *PROC Feb 95* 288-303
Haykin, S., R.J. Racine, Yan Xu, and C.A. Chapman. Monitoring neuronal oscillations and signal transmission between cortical regions using time-frequency analysis of electroencephalographic activity; *PROC Sep 96* 1295-1301
Heinrich, M., D. Ofelt, M.A. Horowitz, and J. Hennessy. Hardware/software co-design of the Stanford FLASH multiprocessor; *PROC Mar 97* 455-466
Heising, R.A. Production of single sideband for trans-Atlantic radio telephony; *PROC May 97* 752-761
Helmken, H., R.E. Henning, J. Feil, L.J. Ippolito, and C.E. Mayer. A three-site comparison of fade-duration measurements; *PROC Jun 97* 917-925
Helmken, H., *see* Feil, J., *PROC Jun 97* 926-935
Hennessy, J., *see* Heinrich, M., *PROC Mar 97* 455-466
Henning, I., S. Sim, C. Gibbings, M. Russell, and P. Cochrane. A testbed for the twenty-first century; *PROC Oct 97* 1572-1581
Henning, R.E., *see* Helmken, H., *PROC Jun 97* 917-925
Henning, R.E., *see* Feil, J., *PROC Jun 97* 926-935
Henriquez, C.S., and A.A. Papazoglou. Using computer models to understand the roles of tissue structure and membrane dynamics in arrhythmogenesis; *PROC Mar 96* 334-354
Herley, C., *see* Ramchandran, K., *PROC Apr 96* 541-560
Hess-Nielsen, N., and M.V. Wickerhauser. Wavelets and time-frequency analysis; *PROC Apr 96* 523-540
Hill, D.J. Scanning the issue: special issue on nonlinear phenomena in power systems: theory and practical implications [intro.]; *PROC Nov 95* 1439-1441
Hills, S.M. High tension insulators for radio-communication; *PROC Feb 97* 314-322
Hiskens, I.A. Analysis tools for power systems-contending with nonlinearities; *PROC Nov 95* 1573-1587
Hobbs, D.S., *see* McManamon, P.F., *PROC Feb 96* 268-298
Hofer, R.C., and M.L. Loper. DIS today [Distributed interactive simulation]; *PROC Aug 95* 1124-1137
Hofler, G.E., *see* Vanderwater, D.A., *PROC Nov 97* 1752-1764
Holonyak, N., Jr. The semiconductor laser: A thirty-five year prospective; *PROC Nov 97* 1678-1693
Holz, M., *see* McManamon, P.F., *PROC Feb 96* 268-298
Hong Lin, *see* Jain, A.K., *PROC Sep 97* 1365-1388
Hon-Sum Wong, *see* Yuan Taur, *PROC Apr 97* 486-504
Hoover, A., *see* Stark, L., *PROC Nov 96* 1640-1656
Hopper, G.M., and J.W. Mauchly. Influence of programming techniques on the design of computers; *PROC Mar 97* 470-474
Horan, S., *see* Feil, J., *PROC Jun 97* 926-935
Horowitz, M.A., *see* Heinrich, M., *PROC Mar 97* 455-466
Hou, H.Q., *see* Choquette, K.D., *PROC Nov 97* 1730-1739
Hsiao-Dong Chang, Chia-Chi Chu, and G. Cauley. Direct stability analysis of electric power systems using energy functions: theory, applications, and perspective; *PROC Nov 95* 1497-1529
Hsien Wu Ming, *see* Ting-Chung Poon, *PROC May 96* 753-764
Hsing, T.R., *see* Lin, D.W., *PROC Feb 95* 175-193
Huang, H., *see* Yatagai, T., *PROC Jun 96* 828-852
Huang, H.K., *see* Wong, S., *PROC Feb 95* 194-219
Huang, T.S., *see* Aizawa, K., *PROC Feb 95* 259-271
Hua Yingbo, *see* Abed-Meraim, K., *PROC Aug 97* 1310-1322
Huffaker, R.M., and R.M. Hardesty. Remote sensing of atmospheric wind velocities using solid-state and CO_2 coherent laser systems; *PROC Feb 96* 181-204
Hughes, D.H., *see* Dragonette, L.R., *PROC Sep 96* 1249-1263
Hui Zhang Service disciplines for guaranteed performance service in packet-switching networks; *PROC Oct 95* 1374-1396
Hung, A.C., *see* Meng, T.H., *PROC Apr 95* 659-680
Hwang, J.-N. Review of "Neural Networks: A Comprehensive Foundation" (Haykin, S.; 1994); *PROC Sep 95* 1294-1296
Hwu, W.W., R.E. Hank, D.M. Gallagher, S.A. Mahlke, D.M. Lavery, G.E. Haab, J.C. Gyllenhaal, and D.I. August. Compiler technology for future microprocessors; *PROC Dec 95* 1625-1640

I

Ichioka, Y., T. Iwaki, and K. Matsuoka. Optical information processing and beyond; *PROC May 96* 694-719
Ideker, R.E., and R.C. Barr. Scanning the issue: Special issue on electrical therapy of cardiac arrhythmias [intro.]; *PROC Mar 96* 331-333
Indiveri, G., *see* Sarpeshkar, R., *PROC Jul 96* 969-987
Ippolito, L.J., *see* Helmken, H., *PROC Jun 97* 917-925
Ippolito, L.J., Jr., *see* Rogers, D.V., *PROC Jun 97* 810-820
Ippolito, L.J., Jr., *see* Feil, J., *PROC Jun 97* 926-935
Ismail, K.E., *see* Yuan Taur, *PROC Apr 97* 486-504
Isono, H., *see* Motoki, T., *PROC Jul 95* 1009-1021
Itoh, K., K. Sasaki, and Y. Nakagome. Trends in low-power RAM circuit technologies; *PROC Apr 95* 524-543
Iwai, T., and T. Asakura. Speckle reduction in coherent information processing; *PROC May 96* 765-781
Iwai, Z. Review of "Direct Adaptive Control Algorithms: Theory and Applications" (Kaufman, H., et al.; 1994); *PROC May 96* 800-801
Iwaki, T., *see* Ichioka, Y., *PROC May 96* 694-719

J

Jabbari, B Introduction to the classic paper by Marconi; *PROC Oct 97* 1523-1525
Jaeger, B.E., *see* Mayer, C.E., *PROC Jun 97* 936-945
Jain, A.K., Lin Hong, S. Pankanti, and R. Bolle. An identity-authentication system using fingerprints; *PROC Sep 97* 1365-1388
Janes, D.B., *see* Roychowdhury, V.P., *PROC Apr 97* 574-588
Jang, J.-S.R., and Chuen-Tsai Sun. Neuro-fuzzy modeling and control; *PROC Mar 95* 378-406
Jaworski, R.V., *see* Warren, J.A., *PROC Mar 96* 468-479
Jelalian, A.V. Scanning the issue: Special issue on laser radar [intro.]; *PROC Feb 96* 99-102
Jenkins, J.M., and S.A. Caswell. Detection algorithms in implantable cardioverter defibrillators; *PROC Mar 96* 428-445
Jensen, M.A., and Y. Rahmat-Samii. EM interaction of handset antennas and a human in personal communications; *PROC Jan 95* 7-17
Jimma, K.M., *see* Vu, K.T., *PROC Nov 95* 1442-1455
Jones, J.L., and O.H. Tovar. The mechanism of defibrillation and cardioversion; *PROC Mar 96* 392-403
Juang Biing-Hwang, *see* Pitton, J.W., *PROC Sep 96* 1199-1215
Jue, J.P., *see* Borella, M.S., *PROC Aug 97* 1274-1307
Jumpertz, J.-L., *see* Colaitis, M.-J., *PROC Jul 96* 1019-1037
Jun Zhang, Yong Yan, and M. Lades. Face recognition: eigenface, elastic matching, and neural nets; *PROC Sep 97* 1423-1435
Jutamulia, S., and J. Tsujiuchi. Scanning the issue: Special issue on optical information processing [intro.]; *PROC May 96* 691-693
Jutamulia, S., and J. Tsujiuchi. Scanning the issue: Special issue on optical information processing, part 2: Applications - Nonimage signal processing [intro.]; *PROC Jun 96* 811-813

K

Kadar, I., *see* Liggins, M.E., II, *PROC Jan 97* 97-109
Kahn, J.M., and J.R. Barry. Wireless infrared communications; *PROC Feb 97* 265-298
Kalata, P., *see* Kam, M., *PROC Jan 97* 110-119
Kalogeras, D., *see* Panagiotidis, N.G., *PROC Oct 96* 1474-1487
Kam, M., Xinoxun Zhu, and P. Kalata. Sensor fusion for mobile robot navigation; *PROC Jan 97* 110-119
Kangas, J., *see* Kohonen, T., *PROC Oct 96* 1358-1384
Kanstein, A., *see* Goser, K.F., *PROC Apr 97* 558-573
Kant, K., and L. Ong. Signaling in emerging telecommunications and data networks; *PROC Oct 97* 1612-1621
Karasawa, Y., and Y. Maekawa. Ka-band Earth-space propagation research in Japan; *PROC Jun 97* 821-842

Karim, M.A., and A.A.S. Awwal. Electrooptic displays for optical information processing; *PROC Jun 96* 814-827
Kasdin, N.J. Discrete simulation of colored noise and stochastic processes and $1/f^{\alpha}$ power law noise generation; *PROC May 95* 802-827
Kassam, S.A., *see* Blum, R.S., *PROC Jan 97* 64-79
Katsaggelos, A.K., *see* Ozcelik, T., *PROC Feb 95* 304-316
Katsaggelos, A.K., *see* Brailean, J.C., *PROC Sep 95* 1272-1292
Katsube, Y., K.-I. Nagami, S. Matsuzawa, and H. Esaki. Internetworking based on cell switch router - Architecture and protocol overview; *PROC Dec 97* 1998-2006
Katz, D., *see* Rekhter, Y., *PROC Dec 97* 1973-1983
Kawai, S., *see* Yatagai, T., *PROC Jun 96* 828-852
Kee Changdon, *see* Enge, P., *PROC Aug 96* 1063-1088
Keicher, W.E., see Meingailis, I., *PROC Feb 95* 227-267
Kersey, A.D. Prolog to the special section on smart structures; *PROC Jan 96* 57-59
Kevlahan, N., *see* Farge, M., *PROC Apr 96* 639-669
Khanna, R., *see* Shen, W., *PROC Sep 97* 1343-1347
Khanna, R., *see* Shen, W., *PROC Sep 97* 1347
Khanna, R., *see* Shen, W., *PROC Sep 97* 1364
Khanna, R., *see* Shen, W., *PROC Sep 97* 1389
Khanna, R., *see* Shen, W., *PROC Sep 97* 1422
Khanna, R., *see* Shen, W., *PROC Sep 97* 1436
Khanna, R., *see* Shen, W., *PROC Sep 97* 1463
Khanna, R., *see* Weicheng Shen, *PROC Sep 97* 1464-1478
Khanna, R., *see* Shen, W., *PROC Sep 97* 1479
Khedkar, P.S., *see* Bonissone, P.P., *PROC Mar 95* 450-465
Khosla, P.K., *see* Director, S.W., *PROC Sep 95* 1246-1269
Kifli, A., *see* Goossens, G., *PROC Mar 97* 436-454
Kim, Y., and P.H. Schimpf. Electrical behavior of defibrillation and pacing electrodes; *PROC Mar 96* 446-456
Kim Seok Chang, *see* Byeong Gi Lee, *PROC Oct 95* 1399-1428
Kirkpatrick, S., *see* Harris, E.P., *PROC Apr 95* 636-658
Kish, F.A., *see* Vanderwater, D.A., *PROC Nov 97* 1752-1764
Klastorin, T.D. Review of "Project Management: Engineering, Technology, and Implementation" (Shtub, A., etal.; 1994); *PROC Dec 95* 1513
Kleihorst, R.P., *see* Brailean, J.C., *PROC Sep 95* 1272-1292
Klein, M.J., see Stelzried, C.T., *PROC Aug 96* 1187
Knisley, S.B., and W.H. Smith. Experimental techniques for investigating cardiac electrical activity and response to electrical stimuli; *PROC Mar 96* 417-427
Koch, C., *see* Sarpeshkar, R., *PROC Jul 96* 969-987
Kohonen, T., E. Oja, O. Simula, A. Visa, and J. Kangas. Engineering applications of the self-organizing map; *PROC Oct 96* 1358-1384
Kollias, S.D., see Panagiotidis, N.G., *PROC Oct 96* 1474-1487
Kompfner, R., *see* Pierce, J.R., *PROC Jun 97* 1011-1019
Kopeika, N.S., *see* Arnon, S., *PROC Oct 97* 1646-1661
Kovac, M., and N. Ranganathan. JAGUAR: a fully pipelined VLSI architecture for JPEG image compression standard; *PROC Feb 95* 247-258
Kovacevic, J., and I. Daubechies. Scanning the issue: Special issue on wavelets [intro.]; *PROC Apr 96* 507-509
Kovacevic, J., *see* Cohen, A., *PROC Apr 96* 514-522
Kowalczuk, J., *see* Mlynek, D.J., *PROC Jul 95* 1055-1070
Kramer, J., *see* Sarpeshkar, R., *PROC Jul 96* 969-987
Krikelis, A., and R.M. Lea. A modular massively parallel computing approach to image-related processing; *PROC Jul 96* 988-1004
Krishnan, K.R.R., *see* Gelenbe, E., *PROC Oct 96* 1488-1496
Kronland-Martinet, R., *see* Guillemain, P., *PROC Apr 96* 561-585
Kruschke, J.K. Review of "Connectionism and Psychology" (Quinlan, P.; 1991); *PROC Oct 95* 1431-1432
Kuansan Wang, *see* Pitton, J.W., *PROC Sep 96* 1199-1215
Kuan-Ting Lin, *see* Goldhirsh, J., *PROC Jun 97* 970-980
Kuchta, D.M. Review of "Computational Methods for Electromagnetics and Microwaves" (Booton, R.C.; 1992); *PROC Jan 95* 123-124
Kunt, M., *see* Egger, O., *PROC Feb 95* 272-287
Kunt, M. Scanning the issue: Special issue on digital television, part I: enabling technologies [intro.]; *PROC Jun 95* 831-833
Kunt, M. Scanning the issue: Special issue on digital television, part 2: hardware and applications [intro.]; *PROC Jul 95* 1007-1008
Kwark, Y.H. Review of "Hot-Carrier Reliability of MOS VLSI Circuits" (Leblebici, Y., and Kang, S.-M.; 1993); *PROC Mar 95* 486-487
Kwatny, H.G., R.F. Fischl, and C.O. Nwankpa. Local bifurcation in power systems: theory, computation, and application; *PROC Nov 95* 1456-1483
Kwong, W.A., K.M. Passino, E.G. Laukonen, and S. Yurkovich. Expert supervision of fuzzy learning systems for fault tolerant aircraft control; *PROC Mar 95* 466-483

L

Lades, M., *see* Jun Zhang, *PROC Sep 97* 1423-1435
Laevens, K., *see* Michiel, H., *PROC Dec 97* 2007-2033
Lagendijk, R.L., *see* Brailean, J.C., *PROC Sep 95* 1272-1292
LaMaire, R.O. Review of "Narrowband Land-Mobile Radio Networks" (Linnartz, J.-P.; 1992); *PROC Apr 95* 695-696
Landwehr, C.E., and D.M. Goldschlag. Security issues in networks with Internet access; *PROC Dec 97* 2034-2051
Langmuir, I. The pure electron discharge and its applications in radio telegraphy and telephony; *PROC Sep 97* 1496-1508
Lanneer, D., *see* Goossens, G., *PROC Mar 97* 436-454
Laukonen, E.G., *see* Kwong, W.A., *PROC Mar 95* 466-483
Lavagno, L., *see* Edwards, S., *PROC Mar 97* 366-390
Lavery, D.M., *see* Hwu, W.W., *PROC Dec 95* 1625-1640
Lea, R.M., *see* Krikelis, A., *PROC Jul 96* 988-1004
Lebegue, X., *see* Challapali, K., *PROC Feb 95* 158-174
Lee, D., and M. Yannakakis. Principles and methods of testing finite state machines-a survey; *PROC Aug 96* 1090-1123
Lee, D., A.N. Netravali, and K.K. Sabnani. Protocol pruning; *PROC Oct 95* 1357-1372
Lee, E.A., *see* Edwards, S., *PROC Mar 97* 366-390
Lee, E.A., and T.M. Parks. Dataflow process networks; *PROC May 95* 773-801
Lee, G.U., *see* Baselt, D.R., *PROC Apr 97* 672-680
Lee, M.T., *see* Sanders, R.S., *PROC Mar 96* 480-486
Lee Byeong Gi, *see* Byeong Gi Lee, *PROC Oct 95* 1399-1428
Lee Dar-Shyang, *see* Srihari, S.N., *PROC Jul 96* 1038-1049
Le Floch, B., M. Alard, and C. Berrou. Coded orthogonal frequency division multiplex [TV broadcasting]; *PROC Jun 95* 982-996
Lega, E., *see* Bijaoui, A., *PROC Apr 96* 670-679
Lenhart, S. Optimal Control Theory for Infinite Dimensional Systems (Li, X., and Yong, J.; 1995) [book review]; *PROC Feb 97* 338-339
Lent, C.S., and P.D. Tougaw. A device architecture for computing with quantum dots; *PROC Apr 97* 541-557
Lepoeter, K., *see* van den Hamer, P., *PROC Jan 96* 42-56
Lerner, J., *see* Taiwei Lu, *PROC Jun 96* 895-905
Lesieutre, B.C., *see* Pai, M.A., *PROC Nov 95* 1562-1572
Levine, M.D. Scanning the issue [including intro. to special section on signals and systems]; *PROC Nov 96* 1579-1580
Li, C.-S. Review of "Asynchronous Transfer Mode Solution for Broadband ISBN, 2nd edn." (De Prycker, M.; 1993); *PROC Mar 95* 487-488
Li, V.O.K., and Wanjiun Liao. Distributed multimedia systems; *PROC Jul 97* 1063-1108
Li, V.O.K., and Xiaoxin Qiu. Personal communication systems (PCS); *PROC Sep 95* 1210-1243
Li, W., *see* Zhang, Y.-Q., *PROC Feb 95* 135-138
Liao Wanjiun, *see* Li, V.O.K., *PROC Jul 97* 1063-1108
Liberman, S., *see* McManamon, P.F., *PROC Feb 96* 268-298
Liem, C., *see* Paulin, P.G., *PROC Mar 97* 419-435
Liem, C., *see* Goossens, G., *PROC Mar 97* 436-454
Liggins, M.E., II, Chee-Yee Chong, I. Kadar, M.G. Alford, V. Vannicola, and S. Thomopoulos. Distributed fusion architectures and algorithms for target tracking; *PROC Jan 97* 97-109
Likourezos, G. Prolog to "Weak electromagnetic fields and cancer in the context of risk assessment"; *PROC May 97* 731-732
Likourezos, G. Prolog to "Applications of antenna arrays to mobile communications, Part I: Performance improvement, feasibility, and system considerations"; *PROC Jul 97* 1029-1030
Likourezos, G Prolog to "Application of antenna arrays to mobile communications, Part II: Beam-forming and direction-of-arrival considerations"; *PROC Aug 97* 1193-1194
Lim, J.S., *see* Challapali, K., *PROC Feb 95* 158-174
Lin, B., *see* Bolsens, I., *PROC Mar 97* 391-418
Lin, D.W., C.-T. Chen, and T.R. Hsing. Video on phone lines: technology and applications; *PROC Feb 95* 175-193
Lin-Cheng Wang, *see* Rizvi, S.A., *PROC Oct 96* 1513-1528
Lin Hong, *see* Jain, A.K., *PROC Sep 97* 1365-1388
Lin Kuan-Ting, *see* Goldhirsh, J., *PROC Jun 97* 970-980
Lippman, A., *see* Netravali, A., *PROC Jun 95* 834-842
Li Tingye, *see* Giles, R., *PROC Jun 96* 870-883
Liu Chen-Ching, *see* Vu, K.T., *PROC Nov 95* 1442-1455
Li Wei, *see* Egger, O., *PROC Feb 95* 272-287
Li Wei, *see* Ebrahimi, T., *PROC Jun 95* 877-891
Li Weiping, *see* Weiping Li, *PROC Feb 95* 317-335
Li Xiao Bo, *see* Haykin, S., *PROC Jan 95* 95-122
Li Yao, *see* Yao Li, *PROC May 96* 720-732
Llinas, J., *see* Hall, D.L., *PROC Jan 97* 6-23
Lo, Y.-H. Scanning the issue: Special issue on optoelectornics technology [intro.]; *PROC Nov 97* 1671-1672
Loper, M.L., *see* Hofer, R.C., *PROC Aug 95* 1124-1137
Lo Shih-Hsien, *see* Yuan Taur, *PROC Apr 97* 486-504
Loughlin, P.J. Scanning the issue: Special issue on time-frequency analysis [intro.]; *PROC Sep 96* 1195-1196
Love, J.C., *see* Goldhaber-Gordon, D., *PROC Apr 97* 521-540

Lucky, R.W. New communications services-what does society want?; *PROC Oct 97* 1536-1543
Luise, M., *see* De Gaudenzi, R., *PROC Jan 96* 18-39
Lulich, D.P., *see* Hammerstrom, D.W., *PROC Jul 96* 1005-1018
Lunceford, W.H., Jr., *see* Shiflett, J.E., *PROC Aug 95* 1168-1178
Lu Taiwei, *see* Taiwei Lu, *PROC Jun 96* 895-905
Lyding, J.W. UHV STM nanofabrication: progress, technology spin-offs, and challenges; *PROC Apr 97* 589-600
Lynch, T., *see* Lyons, M.H., *PROC Oct 97* 1544-1555
Lyons, M.H., F. Burton, B. Egan, T. Lynch, and S. Skelton. Dynamic modeling of present and future service demand; *PROC Oct 97* 1544-1555

M

Maciejewski, A.A. Review of "Robotics and Remote Systems for Hazardous Environments" (Jamshidi, M., and Eicker, P., Eds.; 1993); *PROC Feb 95* 336-337
Macq, B.M., and J.-J. Quisquater. Cryptology for digital TV broadcasting; *PROC Jun 95* 944-957
Maekawa, Y., *see* Karasawa, Y., *PROC Jun 97* 821-842
Magnenat Thalmann, N., and D. Thalmann. Digital actors for interactive television; *PROC Jul 95* 1022-1031
Mahlke, S.A., *see* Hwu, W.W., *PROC Dec 95* 1625-1640
Malis, A.G., *see* Ahmed, H.M., *PROC Dec 97* 1984-1997
Mallat, S. Wavelets for a vision; *PROC Apr 96* 604-614
Mandjes, M., *see* van der Wal, K., *PROC Dec 97* 1947-1957
Mansour, M. Review of "Robust Control: Systems with Uncertain Physical Parameters" (Ackermann, J., et al.; 1993); *PROC Oct 96* 1572
Mansuripur, M., and G. Sincerbox. Principles and techniques of optical data storage; *PROC Nov 97* 1780-1796
Marcelle, K.W., *see* Bonissone, P.P., *PROC Mar 95* 450-465
Marconi, S.G. Radio telegraphy; *PROC Oct 97* 1526-1535
Marcus, S., *see* Melngailis, I., *PROC Feb 96* 227-267
Maresca, M. Scanning the issue: Special issue on parallel architectures for image processing [intro.]; *PROC Jul 96* 915-916
Maresca, M., *see* Baglietto, P., *PROC Jul 96* 917-930
Marrian, C.R.K. Scanning the issue: Special issue on nanometer-scale science and technology [intro.]; *PROC Apr 97* 483-485
Matsui, S. Nanostructure fabrication using electron beam and its application to nanometer devices; *PROC Apr 97* 629-643
Matsumoto, K. STM/AFM nano-oxidation process to room-temperature-operated single-electron transistor and other devices; *PROC Apr 97* 612-628
Matsuoka, K., *see* Ichioka, Y., *PROC May 96* 694-719
Matsuzawa, S., *see* Katsube, Y., *PROC Dec 97* 1998-2006
Mauchly, J.W., *see* Hopper, G.M., *PROC Mar 97* 470-474
Mayer, C.E., *see* Helmken, H., *PROC Jun 97* 917-925
Mayer, C.E., *see* Feil, J., *PROC Jun 97* 926-935
Mayer, C.E., B.E. Jaeger, R.K. Crane, and Xuhe Wang. Ka-band scintillations: measurements and model predictions; *PROC Jun 97* 936-945
Mazor, S. The history of the microcomputer-invention and evolution; *PROC Dec 95* 1601-1608
McCormick, M.P., *see* Winker, D.M., *PROC Feb 96* 164-180
McGown, A., *see* Culshaw, B., *PROC Jan 96* 78-86
McMahan, S.C., M. Bluhm, and R.A. Garibay, Jr. 6×86: the Cyrix solution to executing ×86 binaries on a high performance microprocessor; *PROC Dec 95* 1664-1672
McManamon, P.F., T.A. Dorschner, D.L. Corkum, L.J. Friedman, D.S. Hobbs, M. Holz, S. Liberman, H.Q. Nguyen, D.P. Resler, R.C. Sharp, and E.A. Watson. Optical phased array technology; *PROC Feb 96* 268-298
McRury, I.D., and D.E. Haines. Ablation for the treatment of arrhythmias; *PROC Mar 96* 404-416
Meerkov, S.M. Review of "Manufacturing Systems Engineering" (Gershwin, S.B.; 1994); *PROC Jul 96* 1051-1052
Meindl, J.D. Low power microelectronics: retrospect and prospect; *PROC Apr 95* 619-635
Melngailis, I., W.E. Keicher, C. Freed, S. Marcus, B.E. Edwards, A. Sanchez, Tso Yee Fan, and D.L. Spears. Laser radar component technology; *PROC Feb 96* 227-267
Mendel, J.M. Fuzzy logic systems for engineering: a tutorial; *PROC Mar 95* 345-377
Mendel, J.M. Correction to "Fuzzy logic systems for engineering: A tutorial" (Mar 95 345-377); *PROC Sep 95* 1293
Meng, T.H., B.M. Gordon, E.K. Tsern, and A.C. Hung. Portable video-on-demand in wireless communication; *PROC Apr 95* 659-680
Mertens, R.P., *see* Szlufcik, J., *PROC May 97* 711-730
Messerschmitt, D.G. Introduction to the classic paper by R.A. Heising [on single-sideband transatlantic radio telephony]; *PROC May 97* 747-751
Messerschmitt, D.G. The convergence of telecommunications and computing: what are the implications today?; *PROC Aug 96* 1167-1186
Meyer, F., *see* Salembier, P., *PROC Jun 95* 843-857
Meyrowitz, A.L., D.R. Blidberg, and R.C. Michelson. Autonomous vehicles; *PROC Aug 96* 1147-1164
Michelson, R.C., *see* Meyrowitz, A.L., *PROC Aug 96* 1147-1164
Michie, C., *see* Culshaw, B., *PROC Jan 96* 78-86
Michiel, H., and K. Laevens. Teletraffic engineering in a broad-band era; *PROC Dec 97* 2007-2033
Migliardi, M., *see* Baglietto, P., *PROC Jul 96* 917-930
Mikolajczak, B. Review of "Parallel Logic Programming" (Takeuchi, A.; 1992); *PROC Mar 95* 488
Miller, D.C., and J.A. Thorpe. SIMNET: the advent of simulator networking; *PROC Aug 95* 1114-1123
Milstein, L.B. Review of "Communication Systems Engineering" (Proakis, and Salehi; 1994); *PROC Mar 95* 486
Milutinovic, V., *see* Ekmecic, I., *PROC Aug 96* 1127-1144
Mindell, D.A. Review of "High Performance; The Culture and Technology of Drag Racing: 1950-1990" (Post, R.C.; 1994); *PROC Aug 95* 1200-1201
Ming Hsien Wu, *see* Ting-Chung Poon, *PROC May 96* 753-764
Mingui Sun, Shie Qian, Xiaopu Yan, S.B. Baumann, Xiang-Gen Xia, R.E. Dahl, N.D. Ryan, and R.J. Sclabassi. Localizing functional activity in the brain through time-frequency analysis and synthesis of the EEG; *PROC Sep 96* 1302-1311
Mitra, S.K., *see* Franca, J., *PROC Feb 97* 242-262
Mlynek, D.J., and J. Kowalczuk. VLSI for digital television; *PROC Jul 95* 1055-1070
Mohammad, S.N., A.A. Salvador, and H. Morkoc. Emerging gallium nitride based devices; *PROC Oct 95* 1306-1355
Monk, T., *see* Claffy, K., *PROC Oct 97* 1563-1571
Montemerlo, M.S., *see* Goldhaber-Gordon, D., *PROC Apr 97* 521-540
Morgan, N., and H.A. Bourlard. Neural networks for statistical recognition of continuous speech; *PROC May 95* 742-772
Morkoc, H., *see* Mohammad, S.N., *PROC Oct 95* 1306-1355
Moscheni, F., *see* Dufaux, F., *PROC Jun 95* 858-876
Motoki, T., H. Isono, and I. Yuyama. Present status of three-dimensional television research; *PROC Jul 95* 1009-1021
Moulder, J.E., *see* Foster, K.R., *PROC May 97* 733-746
Moy, J., *see* Ahmed, H.M., *PROC Dec 97* 1984-1997
Mozdzen, T.J., *see* Singh, D., *PROC Apr 95* 570-594
Mukherjee, B., *see* Borella, M.S., *PROC Aug 97* 1274-1307
Mural, R.J., *see* Ying Xu, *PROC Oct 96* 1544-1552
Murase, T., *see* Shafi, M., *PROC Oct 97* 1622-1638
Musiani, B.H., *see* Goldhirsh, J., *PROC Jun 97* 910-916
Musiani, B.H., *see* Goldhirsh, J., *PROC Jun 97* 970-980

N

Nacabal, F., *see* Paulin, P.G., *PROC Mar 97* 419-435
Nagami, K.-I., *see* Katsube, Y., *PROC Dec 97* 1998-2006
Nai-Chyuan Yen, *see* Dragonette, L.R., *PROC Sep 96* 1249-1263
Nakagome, Y., *see* Itoh, K., *PROC Apr 95* 524-543
Nalwa, V.S. Automatic on-line signature verification; *PROC Feb 97* 215-239
Nandhakumar, N., and J.K. Aggarwal. Physics-based integration of multiple sensing modalities for scene interpretation; *PROC Jan 97* 147-163
Narayanan, S.B., *see* Atlas, L.E., *PROC Sep 96* 1319-1329
Narendra, K.S. Neural networks for control theory and practice; *PROC Oct 96* 1385-1406
Nasrabadi, N.M., *see* Rizvi, S.A., *PROC Oct 96* 1513-1528
Nelson, J.K. An introduction to the classic paper by S.M. Hills [on high-voltage insulators for radio]; *PROC Feb 97* 311-313
Netravali, A., and A. Lippman. Digital television: a perspective; *PROC Jun 95* 834-842
Netravali, A.N., *see* Lee, D., *PROC Oct 95* 1357-1372
Nguyen, H.Q., *see* McManamon, P.F., *PROC Feb 96* 268-298
Nichols, T.E., *see* Blahut, D.E., *PROC Jul 95* 1071-1085
Ning, T.H. On Shockley's 1952 Proceedings of the IRE paper; *PROC Dec 97* 2052-2054
Ninomiya, Y. High definition television systems; *PROC Jul 95* 1086-1093
Nlis, J.F., *see* Szlufcik, J., *PROC May 97* 711-730
Noll, P. Digital audio coding for visual communications; *PROC Jun 95* 925-943
Normoyle, K., *see* Tremblay, M., *PROC Dec 95* 1653-1663
Nwankpa, C.O., *see* Kwatny, H.G., *PROC Nov 95* 1456-1483

O

O'Connor, B.T., *see* Dragonette, L.R., *PROC Sep 96* 1249-1263

O'Donnell, R. Prolog to "EM interaction of handset antennas and a human in personal communications"; *PROC Jan 95* 5-6
O'Donnell, R. Prolog to "Advances in satellite CDMA transmission for mobile and personal communications"; *PROC Jan 96* 16-17
O'Donnell, R. Prolog to "The convergence of telecommunications and computing: What are the implications today?"; *PROC Aug 96* 1165-1166
O'Donnell, R. Prolog to "Flash memory cells - An overview"; *PROC Aug 97* 1246-1247
O'Donnell, R. Prolog to "Optical components for WDM lightwave networks"; *PROC Aug 97* 1272-1273
O'Donnell, R. Prolog to "Blind system identification"; *PROC Aug 97* 1308-1309
O'Donnell, R. Prolog to "Personal communication systems (PCS)"; *PROC Sep 95* 1208-1209
O'Donnell, R. Prolog to "Circuit techniques for reducing the effects of op-amp imperfections: Autozeroing, correlated double sampling, and chopper stabilization"; *PROC Nov 96* 1582-1583
O'Donnell, R. Prologs to "A hybrid system for two-dimensional image recognition"; *PROC Nov 96* 1657-1658
O'Donnell, R. Prolog to "Radar"; *PROC Dec 96* 1773-1774
O'Donnell, R. Prolog to "Comments on diffraction principles and limitations of RCS reduction techniques"; *PROC Dec 96* 1828-1829
O'Donnell, R.A. Prolog to "Dataflow process networks"; *PROC May 95* 771-772
Ofelt, D., *see* Heinrich, M., *PROC Mar 97* 455-466
Ogose, S., *see* Shafi, M., *PROC Oct 97* 1622-1638
Ohzu, H., and K. Habara. Behind the scenes of virtual reality: vision and motion; *PROC May 96* 782-798
Oja, E., *see* Kohonen, T., *PROC Oct 96* 1358-1384
Okubo, S. Reference model methodology-A tool for the collaborative creation of video coding standards; *PROC Feb 95* 139-150
Olafson, S. Games on networks; *PROC Oct 97* 1556-1562
Olivo, P., *see* Pavan, P., *PROC Aug 97* 1248-1271
O'Neill, R.R. Review of "Mastering the Dynamics of Innovation: How Companies Can Seize Opportunities in the Face of Technological Change" (Utterback, J.M.; 1994); *PROC Jun 95* 999
Ong, L., *see* Kant, K., *PROC Oct 97* 1612-1621
Ongun, G., *see* Halici, U., *PROC Oct 96* 1497-1512
Opiteck, G.J., *see* Goldhaber-Gordon, D., *PROC Apr 97* 521-540
Osche, G.R., and D.S. Young. Imaging laser radar in the near and far infrared; *PROC Feb 96* 103-125
Otoshi, T.Y. Corrections to "The fractional frequency stability of a 34-m-diameter beam waveguide antenna" (May 94 788-795); *P PROC Aug 96* 1187
Ozcelik, T., J.C. Brailean, and A.K. Katsaggelos. Image and video compression algorithms based on recovery techniques using mean field annealing; *PROC Feb 95* 304-316

P

Pacha, C., *see* Goser, K.F., *PROC Apr 97* 558-573
Pagni, A., *see* Costa, A., *PROC Mar 95* 422-434
Pai, M.A., P.W. Sauer, and B.C. Lesieutre. Static and dynamic nonlinear loads and structural stability in power systems; *PROC Nov 95* 1562-1572
Palk, W.H., *see* Challapali, K., *PROC Feb 95* 158-174
Panagiotidis, N.G., D. Kalogeras, S.D. Kollias, and A. Stafylopatis. Neural network-assisted effective lossy compression of medical images; *PROC Oct 96* 1474-1487
Pankanti, S., *see* Jain, A.K., *PROC Sep 97* 1365-1388
Papazoglou, A.A., *see* Henriquez, C.S., *PROC Mar 96* 334-354
Paraboni, A., *see* Arbesser-Rastburg, B.R., *PROC Jun 97* 843-852
Parks, T.M., *see* Lee, E.A., *PROC May 95* 773-801
Passino, K.M., *see* Kwong, W.A., *PROC Mar 95* 466-483
Patt, Y. Scanning the issue: Special issue on microprocessors [intro.]; *PROC Dec 95* 1439-1440
Pattipati, K., *see* Yeddanapudi, M., *PROC Jan 97* 80-96
Paulin, P.G., C. Liem, M. Cornero, F. Nacabal, and G. Goossens. Embedded software in real-time signal processing systems: application and architecture trends; *PROC Mar 97* 419-435
Paulin, P.G., *see* Goossens, G., *PROC Mar 97* 436-454
Pavan, P., R. Bez, P. Olivo, and E. Zanoni. Flash memory cells-an overview; *PROC Aug 97* 1248-1271
Pearson, D.E. Developments in model-based video coding; *PROC Jun 95* 892-906
Pedram, M., *see* Singh, D., *PROC Apr 95* 570-594
Peirce, A., *see* Dahleh, M., *PROC Jan 96* 7-15
Pelsez, C.E., *see* Bowles, J.B., *PROC Mar 95* 435-449
Pelosi, G. Scanning the past: The birth of the term "microwaves"; *PROC Feb 96* 326
Pence, W.E., *see* Harris, E.P., *PROC Apr 95* 636-658
Perkins, F.K., *see* Snow, E.S., *PROC Apr 97* 601-611
Perrier, V., *see* Farge, M., *PROC Apr 96* 639-669
Petajan, E. The HDTV Grand Alliance system; *PROC Jul 95* 1094-1105
Peterson, L.M., *see* Carmer, D.C., *PROC Feb 96* 299-320
Petraglia, A., *see* Franca, J., *PROC Feb 97* 242-262
Pickard, G.W. Antennae; *PROC Nov 96* 1617-1622
Pielemeier, W.J., G.H. Wakefield, and M.H. Simoni. Time-frequency analysis of musical signals; *PROC Sep 96* 1216-1230
Pierce, J.R., and R. Kompfner. Transoceanic communication by means of satellites -classic paper\; *PROC Jun 97* 1011-1019
Pinto, J.K. Review of "Managing Innovation and Entrepreneurship in Technology Based Firms" (Martin, M.J.C.; 1994); *PROC Nov 96* 1706-1707
Pinto, J.K. Review of "Technology and Strategy: Conceptual Models and Diagnostics" (Goodman, R.A., and Lawless, M.W.; 1994); *PROC Nov 96* 1707-1708
Pinto, J.K. Project Management in Manufacturing and High Technology Management, 2nd edn. (Badiru, A.B.; 1996); *PROC Nov 97* 1875
Pirsch, P., N. Demassieux, and W. Gehrke. VLSI architectures for video compression-a survey; *PROC Feb 95* 220-246
Pitton, J.W., Kuansan Wang, and Biing-Hwang Juang. Time-frequency analysis and auditory modeling for automatic recognition of speech; *PROC Sep 96* 1199-1215
Poon Ting-Chung, *see* Ting-Chung Poon, *PROC May 96* 753-764
Poor, H.V., *see* Blum, R.S., *PROC Jan 97* 64-79
Powers, R.A. Batteries for low power electronics; *PROC Apr 95* 687-693
Pozar, D.M. Beam transmission of ultra short waves: An introduction to the classic paper by H. Yagi; *PROC Nov 97* 1857-1863
Prasanna, V.K., *see* Cho-Li Wang, *PROC Jul 96* 931-946
Protopopescu, V.A., *see* Rao, N.S.V., *PROC Oct 96* 1562-1569
Pullen, J.M., and D.C. Wood. Networking technology and DIS; *PROC Aug 95* 1156-1167
Pullen, S., *see* Engle, P., *PROC Aug 96* 1063-1088
Pupin, M.I. A discussion on experimental tests of the radiation law for radio oscillators; *PROC Feb 97* 306-310
Puskorius, G.V., L.A. Feldkamp, and L.I. Davis, Jr. Dynamic neural network methods applied to on-vehicle idle speed control; *PROC Oct 96* 1407-1420
Putzke, J.J., *see* Warren, J.A., *PROC Mar 96* 468-479

Q

Qian Shie, *see* Mingui Sun, *PROC Sep 96* 1302-1311
Qian Wei, *see* Wei Qian, *PROC Oct 96* 1458-1473
Qinfen Zheng, *see* Chellappa, R., *PROC Jan 97* 120-138
Qiu Wanzhi, *see* Abed-Meraim, K., *PROC Aug 97* 1310-1322
Qiu Xiaoxin, *see* Li, V.O.K., *PROC Sep 95* 1210-1243
Quisquater, J.-J., *see* Macq, B.M., *PROC Jun 95* 944-957

R

Rabaey, J.M., *see* Singh, D., *PROC Apr 95* 570-594
Rabitz, H.A., *see* Dahleh, M., *PROC Jan 96* 7-15
Racine, R.J., *see* Haykin, S., *PROC Sep 96* 1295-1301
Rahmat-Samii, Y., *see* Jensen, M.A., *PROC Jan 95* 7-17
Raitaneu, M., *see* Dorf, R.C., *PROC Sep 97* 1509-1510
Rajgopal, S., *see* Singh, D., *PROC Apr 95* 570-594
Ramakrishna, V., *see* Dahleh, M., *PROC Jan 96* 7-15
Ramamurthy, B., *see* Borella, M.S., *PROC Aug 97* 1274-1307
Ramanaprasad, V., *see* Srihari, S.N., *PROC Jul 96* 1038-1049
Ramchandran, K., M. Vetterli, and C. Herley. Wavelets, subband coding, and best bases; *PROC Apr 96* 541-560
Ranganathan, N., *see* Kovac, M., *PROC Feb 95* 247-258
Rao, N.S.V., and V.A. Protopopescu. On PAC learning of functions with smoothness properties using feedforward sigmoidal networks; *PROC Oct 96* 1562-1569
Reddy, R., and R. Garrett. Future technology challenges in distributed interactive simulation; *PROC Aug 95* 1188-1195
Redfern, M.S., *see* El-Jaroudi, A., *PROC Sep 96* 1312-1318
Reeves, D.S., *see* Alexander, W.E., *PROC Jul 96* 947-968
Rekhter, Y., B. Davie, E. Rosen, G. Swallow, D. Farinacci, and D. Katz. Tag switching architecture overview; *PROC Dec 97* 1973-1983
Resler, D.P., *see* McManamon, P.F., *PROC Feb 96* 268-298
Reusens, E., *see* Ebrahimi, T., *PROC Jun 95* 877-891
Riseman, E.M., *see* Draper, B.A., *PROC Nov 96* 1625-1637
Rizvi, S.A., Lin-Cheng Wang, and N.M. Nasrabadi. Neural network architectures for vector prediction; *PROC Oct 96* 1513-1528
Rizzoni, G., *see* Samimy, B., *PROC Sep 96* 1330-1343
Rizzotto, G., *see* Costa, A., *PROC Mar 95* 422-434
Robertazzi, T. Review of "Fundamentals of Telecommunication Networks" (Saadawi, T.N., et al.; 1994); *PROC Aug 95* 1197-1198

Robinson, P.C., *see* Crane, R.K., *PROC Jun 97* 946-958
Roddy, A.R., and J.D. Stosz. Fingerprint features-statistical analysis and system performance estimates; *PROC Sep 97* 1390-1421
Rogers, D.V., *see* Davarian, F., *PROC Jun 97* 807-809
Rogers, D.V., L.J. Ippolito, Jr., and F. Davarian. System requirements for Ka-band Earth-satellite propagation data; *PROC Jun 97* 810-820
Rohrer, R.A., *see* Director, S.W., *PROC Sep 95* 1246-1269
Roli, F., S.B. Serpico, and G. Vernazza. A hybrid system for two-dimensional image recognition; *PROC Nov 96* 1659-1681
Rosen, E., *see* Rekhter, Y., *PROC Dec 97* 1973-1983
Rossmann, M.L., *see* Goser, K.F., *PROC Apr 97* 558-573
Roth, B.J., and J.P. Wikswo, Jr. The effect of externally applied electrical fields on myocardial tissue; *PROC Mar 96* 379-391
Roychowdhury, V.P., D.B. Janes, and S. Bandyopadhyay. Nanoelectronic architecture for Boolean logic; *PROC Apr 97* 574-588
Rue, F., *see* Bijaoui, A., *PROC Apr 96* 670-679
Russell, M., *see* Henning, I., *PROC Oct 97* 1572-1581
Russie, R.J., *see* Warren, J.A., *PROC Mar 96* 468-479
Rutenbar, R.A., *see* Director, S.W., *PROC Sep 95* 1246-1269
Ryan, N.D., *see* Mingui Sun, *PROC Sep 96* 1302-1311

S

Sabnani, K.K., *see* Lee, D., *PROC Oct 95* 1357-1372
Sai-Halasz, G.A. Performance trends in high-end processors; *PROC Jan 95* 20-36
Sai-Halasz, G.A., *see* Yuan Taur, *PROC Apr 97* 486-504
Salembier, P., L. Torres, F. Meyer, and Chuang Gu. Region-based video coding using mathematical morphology; *PROC Jun 95* 843-857
Salon, S. Review of "How to Design a Single Phase Motor on a Personal Computer, 4th edn." (Veinott, C.); *PROC Mar 95* 485
Salvador, A.A., *see* Mohammad, S.N., *PROC Oct 95* 1306-1355
Samimy, B., and G. Rizzoni. Mechanical signature analysis using time-frequency signal processing: application to internal combustion engine knock detection; *PROC Sep 96* 1330-1343
Sanchez, A., *see* Meingailis, I., *PROC Feb 96* 227-267
Sandberg, I.W. Qualitative Theory of Dynamical Systems: The Role of Stability Preserving Mappings (Michel, A.N., and Wang, K.; 1995); *PROC Jan 97* 198-199
Sanders, R.S., and M.T. Lee. Implantable pacemakers; *PROC Mar 96* 480-486
Sangiovanni-Vincentelli, A., *see* Edwards, S., *PROC Mar 97* 366-390
Sarpeshkar, R., J. Kramer, G. Indiveri, and C. Koch. Analog VLSI architectures for motion processing: from fundamental limits to system applications; *PROC Jul 96* 969-987
Sasaki, K., *see* Itoh, K., *PROC Apr 95* 524-543
Sauer, P.W., *see* Pai, M.A., *PROC Nov 95* 1562-1572
Schafer, R., and T. Sikora. Digital video coding standards and their role in video communications; *PROC Jun 95* 907-924
Schattler, H., *see* Venkatasubramanian, V., *PROC Nov 95* 1530-1561
Schell, W.M., *see* Blahut, D.E., *PROC Jul 95* 1071-1085
Schimpf, P.H., *see* Kim, Y., *PROC Mar 96* 446-456
Schmajuk, N.A. The psychology of robots; *PROC Oct 96* 1553-1561
Schneck, P.B. Introduction to the classic paper "A survey of digital computer memory systems"; *PROC Jan 97* 181-183
Schneck, P.B. A modern review of "Electronic computing circuits of the ENIAC" [classic paper by Arthur W. Burks]; *PROC Jul 97* 1169-1171
Schneck, P.B. A modern review of "Electronic computing circuits of the ENIAC"; *PROC Jul 97* 1169-1171
Schneider, E.G. Radar; *PROC Dec 96* 1775-1827
Schoch, K.F., Jr. Review of "The Wiley Project Engineer's Desk Reference" (Heisler, S.I.; 1994); *PROC Mar 95* 485
Schreiber, W.F. Advanced television systems for terrestrial broadcasting: Some problems and some proposed solutions; *PROC Jun 95* 958-981
Schroder, P. Wavelets in computer graphics; *PROC Apr 96* 615-625
Schroder, P. Corrections to "Wavelets in computer graphics" (Apr 96 615-625); *PROC Aug 96* 1188
Schutten, M.J., *see* Bonissone, P.P., *PROC Mar 95* 450-465
Sclabassi, R.J., *see* Mingui Sun, *PROC Sep 96* 1302-1311
Sehgal, N., *see* Singh, D., *PROC Apr 95* 570-594
Self, K. Prolog to "Modeling and identification of parallel nonlinear systems: Structural classification and parameter estimation methods"; *PROC Jan 95* 37-38
Self, K. Prolog to "Multirate analog-digital systems for signal processing and conversion"; *PROC Feb 97* 240-241
Self, K. Prolog to "Low-cost industrial technologies of crystalline silicon solar cells"; *PROC May 97* 709-710
Self, K. Prolog to "Wide area augmentation of the Global Positioning System"; *PROC Aug 96* 1061-1062
Self, K. Prolog to "Emerging gallium nitride base devices"; *PROC Oct 95* 1305
Seok Chang Kim, *see* Byeong Gi Lee, *PROC Oct 95* 1399-1428
Serpico, S.B., *see* Roli, F., *PROC Nov 96* 1659-1681
Shafi, M., A. Hashimoto, M. Umehira, S. Ogose, and T. Murase. Wireless communications in the twenty-first century: a perspective; *PROC Oct 97* 1622-1638
Shah, M.B., *see* Ying Xu, *PROC Oct 96* 1544-1552
Shahidi, G.G., *see* Davari, B., *PROC Apr 95* 595-606
Shams, S. Neural network optimization for multi-target multi-sensor passive tracking; *PROC Oct 96* 1442-1457
Sharf, I. Review of "Parallel Computation Systems for Robotics Algorithms and Architectures" (Fijany, A., and Bejczy, A., Eds.; 1992); *PROC Aug 95* 1196-1197
Sharp, R.C., *see* McManamon, P.F., *PROC Feb 96* 268-298
Shekhar, C., *see* Chellappa, R., *PROC Jan 97* 120-138
Shen, W., and R. Khanna. Scanning the issue: Special issue on automated biometrics [intro.]; *PROC Sep 97* 1343-1347
Shen, W., and R. Khanna. Prolog to "Iris recognition: An emerging biometric technology"; *PROC Sep 97* 1347
Shen, W., and R. Khanna. Prolog to "An identity-authentication system using fingerprints"; *PROC Sep 97* 1364
Shen, W., and R. Khanna. Prolog to "Fingerprint features: Statistical analysis and system performance estimates"; *PROC Sep 97* 1389
Shen, W., and R. Khanna. Prolog to "Face recognition: Eigenface, elastic matching, and neural nets"; *PROC Sep 97* 1422
Shen, W., and R. Khanna. Prolog to "Speaker recognition: A tutorial"; *PROC Sep 97* 1436
Shen, W., and R. Khanna. Prolog to "Evaluation of automated biometrics-based identification and verification systems"; *PROC Sep 97* 1463
Shen, W., R. Khanna, and J.D. Woodward. Prolog to "Biometrics: Privacy's foe or privacy's friend?"; *PROC Sep 97* 1479
Sheng Yunlong, *see* Yao Li, *PROC May 96* 720-732
Shenoi, B.A. Review of "Handbook for Digital Signal Processing" (Mitra, S.K., and Kaiser, J.F., Eds.; 1993); *PROC Aug 95* 1199-1200
Shen Weicheng, *see* Weicheng Shen, *PROC Sep 97* 1464-1478
Shie Qian, *see* Mingui Sun, *PROC Sep 96* 1302-1311
Shiflett, J.E., W.H. Lunceford, Jr., and R.P. Willis. Application of distributed interactive simulation technology within the Department of Defense; *PROC Aug 95* 1168-1178
Shih-Hsien Lo, *see* Yuan Taur, *PROC Apr 97* 486-504
Shinoda, K., *see* Ting-Chung Poon, *PROC May 96* 753-764
Shin Yong-Chul, *see* Srihari, S.N., *PROC Jul 96* 1038-1049
Shockley, W. Transistor electronics: Imperfections, unipolar and analog transistors; *PROC Dec 97* 2055-2080
Sikora, T., *see* Schafer, R., *PROC Jun 95* 907-924
Sim, S., *see* Henning, I., *PROC Oct 97* 1572-1581
Simaan, M.A. Introduction to "The iconoscope - A modern version of the electric eye"; *PROC Aug 97* 1323-1326
Simoni, M.H., *see* Pielemeier, W.J., *PROC Sep 96* 1216-1230
Simula, O., *see* Kohonen, T., *PROC Oct 96* 1358-1384
Sincerbox, G., *see* Mansuripur, M., *PROC Nov 97* 1780-1796
Singh, D., J.M. Rabaey, M. Pedram, F. Catthoor, S. Rajgopal, N. Sehgal, and T.J. Mozdzen. Power conscious CAD tools and methodologies: a perspective; *PROC Apr 95* 570-594
Sirohey, S., *see* Chellappa, R., *PROC May 95* 705-741
Sivothithaman, S., *see* Szlufcik, J., *PROC May 97* 711-730
Skelton, S., *see* Lyons, M.H., *PROC Oct 97* 1544-1555
Slezak, E., *see* Bijaoui, A., *PROC Apr 96* 670-679
Smith, J.E., and G.S. Sohi. The microarchitecture of superscalar processors; *PROC Dec 95* 1609-1624
Smith, W.H., *see* Knisley, S.B., *PROC Mar 96* 417-427
Snopko, P.A., *see* Challapali, K., *PROC Feb 95* 158-174
Snow, E.S., P.M. Campbell, and F.K. Perkins. Nanofabrication with proximal probes; *PROC Apr 97* 601-611
Sohi, G.S., *see* Smith, J.E., *PROC Dec 95* 1609-1624
Spears, D.L., *see* Meingailis, I., *PROC Feb 96* 227-267
Spiller, T.P. Quantum information processing: cryptography, computation, and teleportation; *PROC Dec 96* 1719-1746
Spillman, W.B., Jr. Sensing and processing for smart structures; *PROC Jan 96* 68-77
Srihari, S.N., Yong-Chul Shin, V. Ramanaprasad, and Dar-Shyang Lee. A system to read names and addresses on tax forms; *PROC Jul 96* 1038-1049
Sri-Jayantha, M., *see* Harris, E.P., *PROC Apr 95* 636-658
Stafylopatis, A., *see* Panagiotidis, N.G., *PROC Oct 96* 1474-1487
Stark, L., K. Bowyer, A. Hoover, and D.B. Goldgof. Recognizing object function through reasoning about partial shape descriptions and dynamic physical properties; *PROC Nov 96* 1640-1656
Steffes, P.G., *see* Alouini, M.-S., *PROC Jun 97* 981-997
Steinmetz, R., *see* Wolf, L.C., *PROC Dec 97* 1915-1933
Steinvall, K.O., *see* Vaughan, J.M., *PROC Feb 96* 205-226

Stelzried, C.T., and M.J. Klein. Corrections to "Precision DSN radiometer systems: Impact on microwave calibrations" (May 94 776-787); *PROC Aug 96* 1187
Stokes, K. Cardiac pacing electrodes; *PROC Mar 96* 457-467
Stork, J.M.C. Technology leverage for ultra-low power information systems; *PROC Apr 95* 607-618
Story, G.A., *see* Blahut, D.E., *PROC Jul 95* 1071-1085
Stosz, J.D., *see* Roddy, A.R., *PROC Sep 97* 1390-1421
Stoustrup, J. Loop Transfer Recovery: Analysis and Design (Saberi, A., et al.; 1993) [book review]; *PROC Feb 97* 337-338
Strifors, H.C., *see* Gaunaurd, G.C., *PROC Sep 96* 1231-1248
Sun Chuen-Tsai, *see* Jang, J.-S.R., *PROC Mar 95* 378-406
Sun Mingui, *see* Mingui Sun, *PROC Sep 96* 1302-1311
Surette, M., *see* Weicheng Shen, *PROC Sep 97* 1464-1478
Suzuki, Y., *see* Ting-Chung Poon, *PROC May 96* 753-764
Swallow, G., *see* Rekhter, Y., *PROC Dec 97* 1973-1983
Sweldens, W. Wavelets: What next?; *PROC Apr 96* 680-685
Swiniarski, R.W. Review of "Neural Networks for Optimization and Signal Processing" (Cichocki, A., and Unbehauen, R.; 1993); *PROC Jul 95* 1106
Szlufcik, J., S. Sivoththaman, J.F. Nlis, R.P. Mertens, and R. Van Overstraeten. Low-cost industrial technologies of crystalline silicon solar cells; *PROC May 97* 711-730
Szu, H.H., *see* Yao Li, *PROC May 96* 720-732
Szurkowski, E.S., *see* Blahut, D.E., *PROC Jul 95* 1071-1085

T

Tacker, W.A., and L.A. Geddes. The laws of electrical stimulation of cardiac tissue; *PROC Mar 96* 355-365
Taiwei Lu, and J. Lerner. Spectroscopy and hybrid neural network analysis; *PROC Jun 96* 895-905
Tan, L-H., *see* Vanderwater, D.A., *PROC Nov 97* 1752-1764
Tan Chin-Woo, *see* Chin-Woo Tan, *PROC Nov 95* 1484-1496
Tartalja, I., *see* Ekmecic, I., *PROC Aug 96* 1127-1144
Taur Yuan, *see* Yuan Taur, *PROC Apr 97* 486-504
Taylor, C.W., *see* Vu, K.T., *PROC Nov 95* 1442-1455
Temes, G.C., *see* Enz, C.C., *PROC Nov 96* 1584-1614
Terman, L.M., and R.-H. Yan. Scanning the issue: Special issue on low power electronics [intro.]; *PROC Apr 95* 495-497
Thalmann, D., *see* Magnenat Thalmann, N., *PROC Jul 95* 1022-1031
Thomas, D.E., and B. Armstrong-Helouvry. Fuzzy logic control-a taxonomy of demonstrated benefits; *PROC Mar 95* 407-421
Thomopoulos, S., *see* Liggins, M.E., II, *PROC Jan 97* 97-109
Thorpe, J.A., *see* Miller, D.C., *PROC Aug 95* 1114-1123
Ting-Chung Poon, Ming Hsien Wu, K. Shinoda, and Y. Suzuki. Optical scanning holography; *PROC May 96* 753-764
Tingye Li, *see* Giles, R., *PROC Jun 96* 870-883
Torres, L., *see* Salembier, P., *PROC Jun 95* 843-857
Tougaw, P.D., *see* Lent, C.S., *PROC Apr 97* 541-557
Toumodge, S. Review of "Model Reference Adaptive Control: From Theory to Practice" (Butler, H.; 1992); *PROC Apr 95* 694-695
Toumodge, S. Review of "Stochastic Systems for Engineers: Modelling, Estimation and Control" (Borrie, J.A.; 1992); *PROC Apr 95* 695
Toumodge, S. Review of "The Principles of Self-Support in Control Systems" (Novakovic, Z.R.; 1992); *PROC Apr 95* 696-697
Toumodge, S. Review of "Predictive Control: A Unified Approach" (Soeterboek, R.; 1992); *PROC Aug 95* 1198-1199
Tovar, O.H., *see* Jones, J.L., *PROC Mar 96* 392-403
Travis, A.R.L. The display of three-dimensional video images; *PROC Nov 97* 1817-1832
Trecordi, V., *see* Decina, M., *PROC Dec 97* 1887-1914
Tredeanick, N. Technology and business: forces driving microprocessor evolution; *PROC Dec 95* 1641-1652
Tremblay, M., D. Greenley, and K. Normoyle. The design of the microarchitecture of UltraSPARC-I; *PROC Dec 95* 1653-1663
Trick, T.N. In memoriam [Mac Elwyn Van Valkenburg (1921-1997)]; *PROC Nov 97* 1675-1677
Troutman, R.R., *see* Harris, E.P., *PROC Apr 95* 636-658
Tsai, C.S. Integrated acoustooptic and magnetooptic devices for optical information processing; *PROC Jun 96* 853-869
Tsai Yeou-Jyh, *see* Enge, P., *PROC Aug 96* 1063-1088
Tsern, E.K., *see* Meng, T.H., *PROC Apr 95* 659-680
Tso Yee Fan, *see* Meingailis, I., *PROC Feb 96* 227-267
Tsujiuchi, J., *see* Jutamulia, S., *PROC May 96* 691-693
Tsujiuchi, J., *see* Jutamulia, S., *PROC Jun 96* 811-813
Tung, L. Detrimental effects of electrical fields on cardiac muscle; *PROC Mar 96* 366-378

U

Uberbacher, E.C., *see* Ying Xu, *PROC Oct 96* 1544-1552
Udd, E. Fiber optic smart structures; *PROC Jan 96* 60-67
Udd, E. Fiber optic smart structures; *PROC Jun 96* 884-894
Ufimtsev, P.Y. Corrections to "Comments on diffraction principles and limitations of RCS reduction techniques" [Dec 96 1830-1851]; *PROC Mar 97* 475
Ufimtsev, P.Y. Comments on diffraction principles and limitations of RCS reduction techniques; *PROC Dec 96* 1830-1851
Umehira, M., *see* Shafi, M., *PROC Oct 97* 1622-1638
Umemoto, M., Y. Eto, and T. Fukinuki. Digital video recording; *PROC Jul 95* 1044-1054
Unser, M., and A. Aldroubi. A review of wavelets in biomedical applications; *PROC Apr 96* 626-638

V

van den Hamer, P., and K. Lepoeter. Managing design data: the five dimensions of CAD frameworks, configuration management, and product data management; *PROC Jan 96* 42-56
van der Wal, K., M. Mandjes, and H. Bastiaansen. Delay performance analysis of the new Internet services with guaranteed QoS; *PROC Dec 97* 1947-1957
Vanderwater, D.A., I.-H. Tan, G.E. Hofler, D.C. Defevere, and F.A. Kish. High-brightness AlGaInP light emitting diodes; *PROC Nov 97* 1752-1764
Vannicola, V., *see* Liggins, M.E., II, *PROC Jan 97* 97-109
Van Overstraeten, R., *see* Szlufcik, J., *PROC May 97* 711-730
Van Praet, J., *see* Goossens, G., *PROC Mar 97* 436-454
Van Rompaey, K., *see* Bolsens, I., *PROC Mar 97* 391-418
Varaiya, P., *see* Chin-Woo Tan, *PROC Nov 95* 1484-1496
Varghese, M., *see* Chin-Woo Tan, *PROC Nov 95* 1484-1496
Varshney, P.K. Scanning the issue: Special issue on data fusion [intro.]; *PROC Jan 97* 3-5
Varshney, P.K., *see* Viswanathan, R., *PROC Jan 97* 54-63
Vaughan, J.M., K.O. Steinvall, C. Werner, and P.H. Flamant. Coherent laser radar in Europe; *PROC Feb 96* 205-226
Venkatasubramanian, V., H. Schattler, and J. Zaborsky. Dynamics of large constrained nonlinear systems-a taxonomy theory [power system stability]; *PROC Nov 95* 1530-1561
Vercauteren, S., *see* Bolsens, I., *PROC Mar 97* 391-418
Verkest, D., *see* Bolsens, I., *PROC Mar 97* 391-418
Verly, J.G., and R.L. Delanoy. Model-based automatic target recognition (ATR) system for forwardlooking groundbased and airborne imaging laser radars (LADAR); *PROC Feb 96* 126-163
Verrazza, G., *see* Roli, F., *PROC Nov 96* 1659-1681
Vetterli, M., *see* Ramchandran, K., *PROC Apr 96* 541-560
Visa, A., *see* Kohonen, T., *PROC Oct 96* 1358-1384
Viswanathan, R., and P.K. Varshney. Distributed detection with multiple sensors I. Fundamentals; *PROC Jan 97* 54-63
Viswanathan, R.G., *see* Yuan Taur, *PROC Apr 97* 486-504
Vogel, W.J., *see* Crane, R.K., *PROC Jun 97* 863-878
Vogel, W.J., *see* Goldhirsh, J., *PROC Jun 97* 910-916
Vu, K.T., Chen-Ching Liu, C.W. Taylor, and K.M. Jimma. Voltage instability: mechanisms and control strategies [power systems]; *PROC Nov 95* 1442-1455

W

Wada, Y., *see* Asai, S., *PROC Apr 97* 505-520
Wakefield, G.H., *see* Pielemeier, W.J., *PROC Sep 96* 1216-1230
Walter, T., *see* Enge, P., *PROC Aug 96* 1063-1088
Wang Cho-Li, *see* Cho-Li Wang, *PROC Jul 96* 931-946
Wang Kuansan, *see* Pitton, J.W., *PROC Sep 96* 1199-1215
Wang Lin-Cheng, *see* Rizvi, S.A., *PROC Oct 96* 1513-1528
Wang Xubo, *see* Crane, R.K., *PROC Jun 97* 863-878
Wang Xubo, *see* Mayer, C.E., *PROC Jun 97* 936-945
Wanjiun Liao, *see* Li, V.O.K., *PROC Jul 97* 1063-1108
Wann, H.-J.C., *see* Yuan Taur, *PROC Apr 97* 486-504
Wanzhi Qiu, *see* Abed-Meraim, K., *PROC Aug 97* 1310-1322
Warren, J.A., R.D. Dreher, R.V. Jaworski, J.J. Putzke, and R.J. Russie. Implantable cardioverter defibrillators; *PROC Mar 96* 468-479
Warwick, C.W. Trends and limits in the "Talk times" of personal communicators; *PROC Apr 95* 681-686
Watson, E.A., *see* McManamon, P.F., *PROC Feb 96* 268-298
Wei Chen, *see* Yuan Taur, *PROC Apr 97* 486-504
Weicheng Shen, M. Surette, and R. Khanna. Evaluation of automated biometrics-based identification and verification systems; *PROC Sep 97* 1464-1478
Wei Li, *see* Egger, O., *PROC Feb 95* 272-287

Wei Li, *see* Ebrahimi, T., *PROC Jun 95* 877-891
Weiping Li, and Ya-Qin Zhang. Vector-based signal processing and quantization for image and video compression; *PROC Feb 95* 317-335
Wei Qian, and L.P. Clarke. Wavelet-based neural network with fuzzy-logic adaptivity for nuclear image restoration; *PROC Oct 96* 1458-1473
Werner, C., *see* Vaughan, J.M., *PROC Feb 96* 205-226
Westenhaver, D.B., *see* Crane, R.K., *PROC Jun 97* 863-878
Wetzel, C., *see* Akasaki, I., *PROC Nov 97* 1750-1751
White, P.P., and J. Crowcroft. The integrated services in the Internet: State of the art; *PROC Dec 97* 1934-1946
Wickerhauser, M.V., *see* Hess-Nielsen, N., *PROC Apr 96* 523-540
Wikswo, J.P., Jr., *see* Roth, B.J., *PROC Mar 96* 379-391
Wildes, R.P. Iris recognition: an emerging biometric technology; *PROC Sep 97* 1348-1363
Williams, R.J. Review of "Neural Networks for Signal Processing" (Kosko, B., Ed.; 1992); *PROC Oct 95* 1432-1433
Williams, W.J. Reduced interference distributions: biological applications and interpretations; *PROC Sep 96* 1264-1280
Willis, R.P., *see* Shiflett, J.E., *PROC Aug 95* 1168-1178
Willsky, A.S., *see* Daniel, M.M., *PROC Jan 97* 164-180
Wilson, C.L., *see* Chellappa, R., *PROC May 95* 705-741
Wind, S.J., *see* Yuan Taur, *PROC Apr 97* 486-504
Winker, D.M., R.H. Couch, and M.P. McCormick. An overview of LITE: NASA's Lidar In-space Technology Experiment; *PROC Feb 96* 164-180
Winn, D. Review of "The Icon Book: Visual Symbols for Computer Systems and Documentation" (Horton, W.; 1994); *PROC Oct 95* 1429-1430
Wittke, J.P. Molecular amplification and generation of microwaves; *PROC Jul 97* 1144-1168
Wolf, L.C., C. Griwodz, and R. Steinmetz. Multimedia communication; *PROC Dec 97* 1915-1933
Wong, S., L. Zaremba, D. Gooden, and H.K. Huang. Radiologic image compression-a review; *PROC Feb 95* 194-219
Wong Hon-Sum, *see* Yuan Taur, *PROC Apr 97* 486-504
Wood, D.C., *see* Dahmann, J.S., *PROC Aug 95* 1111-1113
Wood, D.C., *see* Pullen, J.M., *PROC Aug 95* 1156-1167
Wood, J.C., and D.T. Barry. Time-frequency analysis of skeletal muscle and cardiac vibrations; *PROC Sep 96* 1281-1294
Woodward, J.D., *see* Shen, W., *PROC Sep 97* 1479
Woodward, J.D. Biometrics: privacy's foe or privacy's friend?; *PROC Sep 97* 1480-1492
Wornell, G.W. Emerging applications of multirate signal processing and wavelets in digital communications; *PROC Apr 96* 586-603
Wornell, G.W. Corrections to "Emerging applications of multirate signal processing and wavelets in digital communications" (Apr 96 586-603); *PROC Aug 96* 1187-1188
Wu, F.F., *see* Chin-Woo Tan, *PROC Nov 95* 1484-1496
Wu, M.C. Micromachining for optical and optoelctronic systems; *PROC Nov 97* 1833-1856
Wu, W.W. Satellite communications; *PROC Jun 97* 998-1010
Wu Ming Hsien, *see* Ting-Chung Poon, *PROC May 96* 753-764

X

Xiang-Gen Xia, *see* Mingui Sun, *PROC Sep 96* 1302-1311
Xiao Bo Li, *see* Haykin, S., *PROC Jan 95* 95-122
Xiaopu Yan, *see* Mingui Sun, *PROC Sep 96* 1302-1311
Xiaoxin Qiu, *see* Li, V.O.K., *PROC Sep 95* 1210-1243
Xiaoxun Zhu, *see* Kam, M., *PROC Jan 97* 110-119
Xia Xiang-Gen, *see* Mingui Sun, *PROC Sep 96* 1302-1311
Xuhe Wang, *see* Crane, R.K., *PROC Jun 97* 863-878
Xuhe Wang, *see* Mayer, C.E., *PROC Jun 97* 936-945
Xu Yan, *see* Haykin, S., *PROC Sep 96* 1295-1301
Xu Ying, *see* Ying Xu, *PROC Oct 96* 1544-1552

Y

Yadlowsky, M.J., E.M. Deliso, and V.L. Da Silva. Optical fibers and amplifiers for WDM systems; *PROC Nov 97* 1765-1779
Yagi, H. Beam transmission of ultra short waves; *PROC Nov 97* 1864-1874
Yamamoto, M., *see* Hashimoto, Y., *PROC Jul 95* 1032-1043
Yan, R.-H., *see* Terman, L.M., *PROC Apr 95* 495-497
Yannakakis, M., *see* Lee, D., *PROC Aug 96* 1090-1123
Yan Xiaopu, *see* Mingui Sun, *PROC Sep 96* 1302-1311
Yan Xu, *see* Haykin, S., *PROC Sep 96* 1295-1301
Yan Yong, *see* Jun Zhang, *PROC Sep 97* 1423-1435
Yao Li, H.H. Szu, Yunlong Sheng, and H.J. Caulfield. Wavelet processing and optics; *PROC May 96* 720-732
Ya-Qin Zhang, *see* Weiping Li, *PROC Feb 95* 317-335
Yatagai, T., S. Kawai, and H. Huang. Optical computing and interconnects; *PROC Jun 96* 828-852
Yaz, E.E. Linear Matrix Inequalities in System and Control Theory (Boyd, S., et al.; 1994) [book review]; *PROC Apr 97* 698-699
Yeddanapudi, M., Y. Bar-Shalom, and K. Pattipati. IMM estimation for multitarget-multisensor air traffic surveillance; *PROC Jan 97* 80-96
Yee Fan Tso, *see* Melngailis, I., *PROC Feb 96* 227-267
Yen Nai-Chyuan, *see* Dragonette, L.R., *PROC Sep 96* 1249-1263
Yeou-Jyh Tsai, *see* Enge, P., *PROC Aug 96* 1063-1088
Yi-Chung Chao, *see* Enge, P., *PROC Aug 96* 1063-1088
Yingbo Hua, *see* Abed-Meraim, K., *PROC Aug 97* 1310-1322
Ying Xu, R.J. Mural, J.R. Einstein, M.B. Shah, and E.C. Uberbacher. GRAIL: a multi-agent neural network system for gene identification; *PROC Oct 96* 1544-1552
Yoder, T.J., *see* Dragonette, L.R., *PROC Sep 96* 1249-1263
Yong-Chul Shin, *see* Srihari, S.N., *PROC Jul 96* 1038-1049
Yong Yan, *see* Jun Zhang, *PROC Sep 97* 1423-1435
Young, D.S., *see* Osche, G.R., *PROC Feb 96* 103-125
Yu, F.T.S., and D.A. Gregory. Optical pattern recognition: architectures and techniques; *PROC May 96* 733-752
Yuan Taur, D.A. Buchanan, Wei Chen, D.J. Frank, K.E. Ismail, Shih-Hsien Lo, G.A. Sai-Halasz, R.G. Viswanathan, H.-J.C. Wann, S.J. Wind, and Hon-Sum Wong. CMOS scaling into the nanometer regime; *PROC Apr 97* 486-504
Yunlong Sheng, *see* Yao Li, *PROC May 96* 720-732
Yurkovich, S., *see* Kwong, W.A., *PROC Mar 95* 466-483
Yutao Feng, *see* Gelenbe, E., *PROC Oct 96* 1488-1496
Yuyama, I., *see* Motoki, T., *PROC Jul 95* 1009-1021

Z

Zaborsky, J., *see* Venkatasubramanian, V., *PROC Nov 95* 1530-1561
Zalevsky, J. Review of "SBus: Information, Applications, and Experience" (Lyle, J.D.; 1992); *PROC Apr 95* 694
Zanoni, E., *see* Pavan, P., *PROC Aug 97* 1248-1271
Zaremba, L., *see* Wong, S., *PROC Feb 95* 194-219
Zhang, Y.-Q., and W. Li. Scanning the issue: Special issue on advances in image and video compression [intro.]; *PROC Feb 95* 135-138
Zhang Hui, *see* Hui Zhang, *PROC Oct 95* 1374-1396
Zhang Jun, *see* Jun Zhang, *PROC Sep 97* 1423-1435
Zhang Ya-Qin, *see* Weiping Li, *PROC Feb 95* 317-335
Zheng Qinfen, *see* Chellappa, R., *PROC Jan 97* 120-138
Zhou, M.C. Review of "Process Control Engineering" (Rao, M., and Qui, H.; 1993); *PROC Nov 95* 1592-1593
Zhu Xiaoxun, *see* Kam, M., *PROC Jan 97* 110-119
Zingirian, N., *see* Baglietto, P., *PROC Jul 96* 917-930
Zirilli, F., *see* Costantini, M., *PROC Jan 97* 139-146
Zworykin, V.K. The iconoscope - A modern version of the electric eye; *PROC Aug 97* 1327-1333

SUBJECT INDEX

A

Ablation
arrhythmia treatment, elec./RF ablation, review. *McRury, I.D., + , PROC Mar 96* 404-416
Absorbing media; cf. Electromagnetic scattering by absorbing media
Access control
automatic speaker-recogn. systs. *Campbell, J.P., Jr., PROC Sep 97* 1437-1462
digital TV broadcasting, cryptology. *Macq, B.M., + , PROC Jun 95* 944-957
iris recogn. *Wildes, R.P., PROC Sep 97* 1348-1363
privacy aspects of biometrics. *Woodward, J.D., PROC Sep 97* 1480-1492
Access protocols
pers. commun. systs., review. *Li, V.O.K., + , PROC Sep 95* 1210-1243
AC generators
Benjamin G. Lamme, career/contribs. *Brittain, J.E., PROC Nov 95* 1594-1595
AC motors; cf. Induction motors
Acoustic convolvers
air-filled elastic shells, acoustical scatt., structural excitations anal. *Dragonette, L.R., + , PROC Sep 96* 1249-1263
Acoustic filters; cf. Acoustooptic filters
Acoustic scattering
air-filled elastic shells, acoustical scatt., structural excitations anal. *Dragonette, L.R., + , PROC Sep 96* 1249-1263

Acoustic scattering; cf. Sonar scattering
Acoustic signal analysis
continuous lin. time-freq. representations. *Guillemain, P., + , PROC Apr 96* 561-585
musical sigs., time-freq. anal. *Pielemeier, W.J., + , PROC Sep 96* 1216-1230
Acoustic signal analysis; cf. Sonar signal analysis
Acoustooptic filters
Bragg cell Integrated acoustooptic/magnetooptic modulator devices for opt. inform. proc. *Tsai, C.S., PROC Jun 96* 853-869
Acoustooptic modulation
Bragg cell Integrated acoustooptic/magnetooptic modulator devices for opt. inform. proc. *Tsai, C.S., PROC Jun 96* 853-869
Acoustooptic signal processing; cf. Acoustooptic filters
Acoustooptic switches
Bragg cell Integrated acoustooptic/magnetooptic modulator devices for opt. inform. proc. *Tsai, C.S., PROC Jun 96* 853-869
Active circuits; cf. Oscillators
Active vision
book review; Active Vision (Blake, A., and Yuille, A.; 1992). *Hager, G., PROC Mar 95* 484
Adaptive control
book review; Direct Adaptive Control Algorithms: Theory and Applications (Kaufman, H., et al.; 1994). *Iwai, Z., PROC May 96* 800-801
Adaptive filters
morph. subband decomp., image coding. *Egger, O., + , PROC Feb 95* 272-287
Adaptive signal detection
morph. subband decomp., image coding. *Egger, O., + , PROC Feb 95* 272-287
Adaptive signal processing
antenna arrays appl. to mobile commun., beamforming and DOA aspects. *Godara, L.C., PROC Aug 97* 1195-1245
morph. subband decomp., image coding. *Egger, O., + , PROC Feb 95* 272-287
Adaptive signal processing; cf. Adaptive filters
Adaptive systems
autonomous robots, adaptive neural control. *Schmajuk, N.A., PROC Oct 96* 1553-1561
neuro-fuzzy modeling/control, adaptive network. *Jang, J.-S.R., + , PROC Mar 95* 378-406
Aerosols
LITE, NASA space lidar for cloud and aerosol. *Winker, D.M., + , PROC Feb 96* 164-180
Aerospace control; cf. Aircraft control; Air traffic control
Agriculture
laser radar imaging sens. for robotic appls. *Carmer, D.C., + , PROC Feb 96* 299-320
Airborne radar
XTRS LADAR, model-based automatic target recogn. syst. *Verly, J.G., + , PROC Feb 96* 126-163
Aircraft; cf. Military aircraft
Aircraft control
fighter aircraft fault tolerant fuzzy control. *Kwong, W.A., + , PROC Mar 95* 466-483
fuzzy logic control, indust. appls. *Bonissone, P.P., + , PROC Mar 95* 450-465
Aircraft instrumentation
coherent laser radar in Europe, ground-based and airborne systs. *Vaughan, J.M., + , PROC Feb 96* 205-226
Aircraft navigation
GPS wide area augmentation for aircraft navig. *Enge, P., + , PROC Aug 96* 1063-1088
Air traffic control
distributed fusion archits. and algms. for target tracking. *Liggins, M.E., II, + , PROC Jan 97* 97-109
multitarget-multisensor air traffic surveillance, interact. multiple model estim. *Yeddanapudi, M., + , PROC Jan 97* 80-96
Algebra; cf. Set theory
Aluminum compounds
high-brightness AlGaInP light emitting diodes. *Vanderwater, D.A., + , PROC Nov 97* 1752-1764
Amplifiers; cf. Feedback amplifiers; Optical amplifiers
Amplitude modulation
acoustic sigs. charact., continuous lin. time-freq. representation. *Guillemain, P., + , PROC Apr 96* 561-585
Amplitude shift keying
IR wireless high-speed short-range digital commun. *Kahn, J.M., + , PROC Feb 97* 265-298
Analog-digital conversion
multirate analog-digital systs. for sig. proc./conversion. *Franca, J., + , PROC Feb 97* 242-262
Analog integrated circuits
book review; Analog VLSI Implementation of Neural Systems (Mead, C., and Ismail, M., Eds.; 1989). *Andreou, A.G., PROC Oct 95* 1430-1431
Analog integrated circuits; cf. Mixed analog-digital integrated circuits
Analog processing circuits
VLSI analog archit., motion proc. *Sarpeshkar, R., + , PROC Jul 96* 969-987
Animals
cortical region neuronal oscills., EEG activity time-freq. anal. *Haykin, S., + , PROC Sep 96* 1295-1301
skeletal muscle/cardiac vibrs., time-freq. anal. *Wood, J.C., + , PROC Sep 96* 1281-1294
Animation
interactive TV, digital actors. *Magnenat Thalmann, N., + , PROC Jul 95* 1022-1031
Antenna accessories
HT insulators, dielec. props. and radio appl. *Hills, S.M., PROC Feb 97* 314-322
Antenna arrays
mobile commun., antenna arrays appl., beamforming and DOA aspects. *Godara, L.C., PROC Aug 97* 1195-1245
mobile commun., antenna arrays, channel requirement, appls. *Godara, L.C., PROC Jul 97* 1031-1060
Antenna arrays; cf. Phased arrays; Yagi-Uda arrays
Antenna measurements
corrections to "The fractional frequency stability of a 34-m-diameter beam waveguide antenna" (May 94 788-795). *Otoshi, T.Y., P PROC Aug 96* 1187
intro. to classic paper by M.I. Pupin on antenna radiation resistance meas. (classic paper reprint, pp. 306-310). *Collin, R.E., PROC Feb 97* 301-305
James K. Clapp, career/contribs. *Brittain, J.E., PROC Apr 95* 698
Antenna radiation patterns
radiation law determ. and theory. *Pupin, M.I., PROC Feb 97* 306-310
Antennas; cf. Mobile antennas; Monopole antennas; Multibeam antennas; Reflector antennas; Transmitting antennas; UHF antennas; Waveguide antennas; Wire antennas
Antenna theory
Sergei A. Schelkunoff, career/contribs. *Brittain, J.E., PROC Sep 96* 1344
Aperture antennas; cf. Waveguide antennas
Application specific integrated circuits
embedded software in real-time sig. proc., telecom appl. *Paulin, P.G., + , PROC Mar 97* 419-435
fuzzy control, hardware soln. *Costa, A., + , PROC Mar 95* 422-434
reactive real-time embedded syst. design, formal models. *Edwards, S., + , PROC Mar 97* 366-390
VLSI for digital HDTV. *Mlynek, D.J., + , PROC Jul 95* 1055-1070
Approximation methods
PAC learning fn. approx., feedforward sigmoidal nets. *Rao, N.S.V., + , PROC Oct 96* 1562-1569
Approximation methods; cf. Interpolation; Least squares methods
Arrays; cf. Antenna arrays; Logic arrays; Optical arrays
Array signal processing
antenna arrays appl. to mobile commun., beamforming aspects. *Godara, L.C., PROC Aug 97* 1195-1245
Artificial intelligence
book review; Review of Computatational Intelligence Imitating Life (Zurada, J.M., et al., Eds.; 1994). *Fogel, D.B., PROC Nov 95* 1588-1591
knowledge-directed vision, control, learning and integrat. *Draper, B.A., + , PROC Nov 96* 1625-1637
multisensor data fusion, state of art/appls. *Hall, D.L., + , PROC Jan 97* 6-23
Artificial intelligence; cf. Knowledge based systems
Associative memories
opt. pattern recogn. archits./techs. *Yu, F.T.S., + , PROC May 96* 733-752
Astronomy
wavelets and study of distant Universe. *Bijaoui, A., + , PROC Apr 96* 670-679
Astronomy; cf. Radio astronomy
Asynchronous logic circuits
design methodologies/computations, overview. *Hauck, S., PROC Jan 95* 69-93
Asynchronous transfer mode
book review; Asynchronous Transfer Mode Solution for Broadband ISBN, 2nd edn. (De Prycker, M.; 1993). *Li, C.-S., PROC Mar 95* 487-488
convergence of telecomms. and computing to networking models for integrated services and appls. *Decina, M., + , PROC Dec 97* 1887-1914
distributed interactive simul., networking technol. *Pullen, J.M., + , PROC Aug 95* 1156-1167

internetworking based on cell switch router - archit. and protocol review. *Katsube, Y.*, + , *PROC Dec 97* 1998-2006
IP switching for scalable IP services. *Ahmed, H.M.*, + , *PROC Dec 97* 1984-1997
network traffic mgt. by neural net. *Habib, I.W.*, *PROC Oct 96* 1430-1441
public networks, perform. mgt., scaleable/flexible approach. *Azmoodeh, M.*, + , *PROC Oct 97* 1639-1645
scrambling techs. for dig. lightwave transm. *Byeong Gi Lee*, + , *PROC Oct 95* 1399-1428
tag switching archit. overview. *Rekhter, Y.*, + , *PROC Dec 97* 1973-1983
telecomms. and data networks signaling. *Kani, K.*, + , *PROC Oct 97* 1612-1621
wireless commun. in twenty-first century. *Shafi, M.*, + , *PROC Oct 97* 1622-1638

Atmospheric measurements
LITE, NASA space lidar for cloud and aerosol. *Winker, D.M.*, + , *PROC Feb 96* 164-180
wind velocities, rem. sens., coherent laser radar systs. *Huffaker, R.M.*, + , *PROC Feb 96* 181-204

Atomic force microscopy
nano-oxid. proc., single-electron transistors, photoconductive switches, HEMT. *Matsumoto, K.*, *PROC Apr 97* 612-628
proximal probes, nanofabrication, STM and AFM. *Snow, E.S.*, + , *PROC Apr 97* 601-611

Attenuation measurement
ACTS propag. expt. for Ka-band satellite commun. syst. design. *Crane, R.K.*, + , *PROC Jun 97* 863-878
S-band polarimetric radar meas. appl., Ka-band atten. predict. *Beaver, J.D.*, + , *PROC Jun 97* 893-909

Audio coding
digital audio coding for visual commun. *Noll, P.*, *PROC Jun 95* 925-943
MPEG integrated audiovisual coding std., develop. *Chiariglione, L.*, *PROC Feb 95* 151-157

Auditory system
automatic speech recogn., time-freq. anal. and auditory modeling. *Pitton, J.W.*, + , *PROC Sep 96* 1199-1215
digital audio coding for visual commun. *Noll, P.*, *PROC Jun 95* 925-943
wavelets in biomedical appls. review. *Unser, M.*, + , *PROC Apr 96* 626-638

Automation; cf. Design automation

Autoregressive moving average processes
neural nets, control appls., practise. *Narendra, K.S.*, *PROC Oct 96* 1385-1406

B

Backscattering; cf. Radar detection

Bandwidth compression
3D TV research, present status. *Motoki, T.*, + , *PROC Jul 95* 1009-1021

Batteries
low power electronics, batt. technol. *Powers, R.A.*, *PROC Apr 95* 687-693

Bayes procedures
distributed detect. with multiple sens., fund. *Viswanathan, R.*, + , *PROC Jan 97* 54-63

Beam waveguides
corrections to "Precision DSN radiometer systems: impact on microwave calibrations" (May 94 776-787). *Stelzried, C.T.*, + , *PROC Aug 96* 1187
corrections to "The fractional frequency stability of a 34-m-diameter beam waveguide antenna" (May 94 788-795). *Otoshi, T.Y.*, *P PROC Aug 96* 1187

Behavioral science; cf. Psychology

Bifurcation
multimachine power syst. structural stabil., nonlin. load effects. *Pai, M.A.*, + , *PROC Nov 95* 1562-1572
nonlin. large power syst. stabil. anal., taxonomy theory-based. *Venkatasubramanian, V.*, + , *PROC Nov 95* 1530-1561
power syst. voltage collapse modelling, bifurcation theory-based. *Chin-Woo Tan*, + , *PROC Nov 95* 1484-1496
power syst. voltage stabil. anal., local bifurcation theory-based. *Kwatny, H.G.*, + , *PROC Nov 95* 1456-1483

Binary sequences
digital lightwave transm., scrambling techs. *Byeong Gi Lee*, + , *PROC Oct 95* 1399-1428

Bioacoustics; cf. Biomedical acoustics

Biocontrol; cf. Biological control systems

Bioelectric phenomena
arrhythmia treatment, elec./RF ablation, review. *McRury, I.D.*, + , *PROC Mar 96* 404-416
cardiac elec. activity, response, elec. stimuli. *Knisley, S.B.*, + , *PROC Mar 96* 417-427
cardiac muscle, detrimental effects of elec. fields. *Tung, L.*, *PROC Mar 96* 366-378
cardiac tissue, elec. stimulation laws. *Tacker, W.A.*, + , *PROC Mar 96* 355-365
defibrillation/cardioversion mechanism. *Jones, J.L.*, + , *PROC Mar 96* 392-403
defibrillation/pacing electrodes, elec. behavior. *Kim, Y.*, + , *PROC Mar 96* 446-456
electrical therapy of cardiac arrhythmias (special issue). *PROC Mar 96* 331-499
myocardial tissue, externally applied elec. fields effect. *Roth, B.J.*, + , *PROC Mar 96* 379-391
reduced interf. distribs., biological appls./interps. *Williams, W.J.*, *PROC Sep 96* 1264-1280
skeletal muscle/cardiac vibrs., time-freq. anal. *Wood, J.C.*, + , *PROC Sep 96* 1281-1294
wavelets in biomedical appls. review. *Unser, M.*, + , *PROC Apr 96* 626-638

Biofeedback; cf. Biological control systems

Biographies
George H. Brown, brief biog./contribs. *Brittain, J.E.*, *PROC Feb 95* 338

Biological control systems
postural sway, human bal. control, time-freq. spectral anal. *El-Jaroudi, A.*, + , *PROC Sep 96* 1312-1318

Biological effects of electromagnetic radiation
arrhythmia treatment, elec./RF ablation, review. *McRury, I.D.*, + , *PROC Mar 96* 404-416
cancer risk assess., weak EM fields. *Foster, K.R.*, + , *PROC May 97* 733-746
cardiac muscle, detrimental effects of elec. fields. *Tung, L.*, *PROC Mar 96* 366-378
cellular pers. commun., handset antenna/human EM interact. *Jensen, M.A.*, + , *PROC Jan 95* 7-17
myocardial tissue, externally applied elec. fields effect. *Roth, B.J.*, + , *PROC Mar 96* 379-391

Biological materials
GRAIL, multi-agent neural net gene ident. syst. *Ying Xu*, + , *PROC Oct 96* 1544-1552

Biological system modeling
arrhythmogenesis, computer models, tissue struct./membrane dyn. roles. *Henriquez, C.S.*, + , *PROC Mar 96* 334-354
myocardial tissue, externally applied elec. fields effect. *Roth, B.J.*, + , *PROC Mar 96* 379-391
skeletal muscle/cardiac vibrs., time-freq. anal. *Wood, J.C.*, + , *PROC Sep 96* 1281-1294

Biological systems; cf. Biological control systems; Biological tissues; Nervous system; Visual system

Biological thermal factors
arrhythmia treatment, elec./RF ablation, review. *McRury, I.D.*, + , *PROC Mar 96* 404-416

Biological tissues
arrhythmogenesis, computer models, tissue struct./membrane dyn. roles. *Henriquez, C.S.*, + , *PROC Mar 96* 334-354
cardiac tissue, elec. stimulation laws. *Tacker, W.A.*, + , *PROC Mar 96* 355-365
defibrillation/pacing electrodes, elec. behavior. *Kim, Y.*, + , *PROC Mar 96* 446-456

Biological tissues; cf. Biological thermal factors; Muscles

Biology; cf. Genetics

Biomechanics
skeletal muscle/cardiac vibrs., time-freq. anal. *Wood, J.C.*, + , *PROC Sep 96* 1281-1294

Biomedical acoustics
reduced interf. distribs., biological appls./interps. *Williams, W.J.*, *PROC Sep 96* 1264-1280
skeletal muscle/cardiac vibrs., time-freq. anal. *Wood, J.C.*, + , *PROC Sep 96* 1281-1294
wavelets in biomedical appls. review. *Unser, M.*, + , *PROC Apr 96* 626-638

Biomedical applications of electromagnetic radiation
arrhythmia treatment, elec./RF ablation, review. *McRury, I.D.*, + , *PROC Mar 96* 404-416

Biomedical applications of optical radiation; cf. Laser biomedical applications

Biomedical computing
arrhythmogenesis, computer models, tissue struct./membrane dyn. roles. *Henriquez, C.S.*, + , *PROC Mar 96* 334-354
GRAIL, multi-agent neural net gene ident. syst. *Ying Xu*, + , *PROC Oct 96* 1544-1552
skeletal muscle/cardiac vibrs., time-freq. anal. *Wood, J.C.*, + , *PROC Sep 96* 1281-1294

Biomedical electrodes
arrhythmia treatment, elec./RF ablation, review. *McRury, I.D., + , PROC Mar 96* 404-416
cardiac elec. activity, response, elec. stimuli. *Knisley, S.B., + , PROC Mar 96* 417-427
defibrillation/pacing electrodes, elec. behavior. *Kim, Y., + , PROC Mar 96* 446-456
Biomedical electrodes; cf. Implantable electrodes
Biomedical equipment; cf. Biomedical transducers
Biomedical magnetic resonance imaging
human brain NMR image anal. by neural net. *Gelenbe, E., + , PROC Oct 96* 1488-1496
radiologic image compression, review. *Wong, S., + , PROC Feb 95* 194-219
wavelets in biomedical appls. review. *Unser, M., + , PROC Apr 96* 626-638
Biomedical materials
cardiac pacing electrodes, pulse generator/lead perform. *Stokes, K., PROC Mar 96* 457-467
Biomedical measurements
automated biometrics (special issue). *PROC Sep 97* 1343-1492
automated biometrics, special issue intro. *Shen, W., + , PROC Sep 97* 1343-1347
Biomedical monitoring
cortical region neuronal oscills., EEG activity time-freq. anal. *Haykin, S., + , PROC Sep 96* 1295-1301
Biomedical nuclear imaging
nuc. med. image restoration by neural net. *Wei Qian, + , PROC Oct 96* 1458-1473
radiologic image compression, review. *Wong, S., + , PROC Feb 95* 194-219
Biomedical power supplies
cardiac pacing electrodes, pulse generator/lead perform. *Stokes, K., PROC Mar 96* 457-467
Biomedical signal analysis
brain functional activity localization, EEG time-freq. anal. *Mingui Sun, + , PROC Sep 96* 1302-1311
implantable cardioverter defibrillators, detect. algms. *Jenkins, J.M., + , PROC Mar 96* 428-445
Biomedical signal detection
implantable cardioverter defibrillators, detect. algms. *Jenkins, J.M., + , PROC Mar 96* 428-445
Biomedical signal processing
cortical region neuronal oscills., EEG activity time-freq. anal. *Haykin, S., + , PROC Sep 96* 1295-1301
human brain NMR image anal. by neural net. *Gelenbe, E., + , PROC Oct 96* 1488-1496
lossy compression by neural net. *Panagiotidis, N.G., + , PROC Oct 96* 1474-1487
nuc. med. image restoration by neural net. *Wei Qian, + , PROC Oct 96* 1458-1473
reduced interf. distribs., biological appls./interps. *Williams, W.J., PROC Sep 96* 1264-1280
skeletal muscle/cardiac vibrs., time-freq. anal. *Wood, J.C., + , PROC Sep 96* 1281-1294
wavelets in biomedical appls. review. *Unser, M., + , PROC Apr 96* 626-638
Biomedical transducers
micromachined device. *Baselt, D.R., + , PROC Apr 97* 672-680
Biomedical ultrasonics; cf. Biomedical acoustics
Biomedical X-ray imaging
radiologic image compression, review. *Wong, S., + , PROC Feb 95* 194-219
wavelets in biomedical appls. review. *Unser, M., + , PROC Apr 96* 626-638
Bipolar digital integrated circuits
high-end proc., CMOS and bipolar, perform. trends. *Sai-Halasz, G.A., PROC Jan 95* 20-36
B-ISDN
global information infrastructure (special issue). *PROC Dec 97* 1883-2051
global information infrastructure, special issue intro. *Goode, B., PROC Dec 97* 1883-1886
teletraffic engng. in broadband era. *Michiel, H., + , PROC Dec 97* 2007-2033
Block codes
motion estim. techs. for digital TV, review. *Dufaux, F., + , PROC Jun 95* 858-876
Book reviews
Active Vision (Blake, A., and Yuille, A.; 1992). *Hager, G., PROC Mar 95* 484
Analog VLSI Implementation of Neural Systems (Mead, C., and Ismail, M., Eds.; 1989). *Andreou, A.G., PROC Oct 95* 1430-1431
Asynchronous Transfer Mode Solution for Broadband ISBN, 2nd edn. (De Prycker, M.; 1993). *Li, C.-S., PROC Mar 95* 487-488
Communication Systems Engineering (Proakis, and Salehi; 1994). *Milstein, L.B., PROC Mar 95* 486
Computational Methods for Electromagnetics and Microwaves (Booton, R.C.; 1992). *Kuchta, D.M., PROC Jan 95* 123-124
Concurrent Engineering Design (Miller, L.G.; 1994). *Harper, A., PROC Mar 95* 485-486
Connectionism and Psychology (Quinlan, P.; 1991). *Kruschke, J.K., PROC Oct 95* 1431-1432
Developing Online Help for Windows (Boggan, S., et al.; 1993). *Barker, T.T., PROC Jun 95* 997-998
Direct Adaptive Control Algorithms: Theory and Applications (Ksufman, H., et al.; 1994). *Iwai, Z., PROC May 96* 800-801
Dyadic Green Functions in Electromagnetic Theory (Tai, C.-T.; 1994). *Eleftheriades, G., PROC Jun 95* 998-999
Engineering Applications of Correlation and Spectral Analysis (Bendat, J.S., and Piersol, A.G.; 1993). *Chen, T.-H., PROC Jan 95* 124
Fundamentals of Artificial Neural Networks (Hassoun, M.H.; 1995). *Arabshahi, P., PROC Jun 96* 906-907
Fundamentals of Telecommunication Networks (Saadawi, T.N., et al.; 1994). *Robertazzi, T., PROC Aug 95* 1197-1198
Handbook for Digital Signal Processing (Mitra, S.K., and Kaiser, J.F., Eds.; 1993). *Shenoi, B.A., PROC Aug 95* 1199-1200
Heuristic Scheduling Systems with Applications to Production Systems and Project Management (Morton, T.E., and Pentico, D.W.; 1993). *Bard, J.F., PROC Feb 96* 324-325
High Performance; The Culture and Technology of Drag Racing: 1950-1990 (Post, R.C.; 1994). *Mindell, D.A., PROC Aug 95* 1200-1201
Hot-Carrier Reliability of MOS VLSI Circuits (Leblebici, Y., and Kang, S.-M.; 1993). *Kwark, Y.H., PROC Mar 95* 486-487
How to Design a Single Phase Motor on a Personal Computer, 4th edn. (Veinott, C.). *Salon, S., PROC Mar 95* 485
Introduction to the Theory of Neural Computation (Hertz, J., et al.; 1991). *Abu-Mostafa, Y.S., PROC May 96* 799
Kalman Filtering: Theory and Practice (Grewal, M.S., and Andrews, A.P.; 1993). *Bass, R.W., PROC Feb 96* 321-324
LAN Communications Handbook (Simonds, F.; 1994). *Hayes, D.F., PROC Sep 95* 1296-1297
Linear Matrix Inequalities in System and Control Theory (Boyd, S., et al.; 1994). *Yaz, E.E., PROC Apr 97* 698-699
Loop Transfer Recovery: Analysis and Design (Saberti, A., et al.; 1993. *Stoustrup, J., PROC Feb 97* 337-338
Managing Innovation and Entrepreneurship in Technology Based Firms (Martin, M.J.C.; 1994). *Pinto, J.K., PROC Nov 96* 1706-1707
Manufacturing Systems Engineering (Gershwin, S.B.; 1994). *Meerkov, S.M., PROC Jul 96* 1051-1052
Mastering the Dynamics of Innovation: How Companies Can Seize Opportunities in the Face of Technological Change (Utterback, J.M.; 1994). *O'Neill, R.R., PROC Jun 95* 999
Meeting of the Minds: Creating the Market-Based Enterprise (Barabba, V.; 1995). *Geisler, E., PROC Aug 97* 1334
Model Reference Adaptive Control: From Theory to Practice (Butler, H.; 1992). *Toumodge, S., PROC Apr 95* 694-695
Narrowband Land-Mobile Radio Networks (Linnartz, J.-P.; 1992). *LaMaire, R.O., PROC Apr 95* 695-696
Neural Networks: A Comprehensive Foundation (Haykin, S.; 1994). *Hwang, J.-N., PROC Sep 95* 1294-1296
Neural Networks: Current Applications (Lisboa, P.G.J., Ed; 1992). *Feldkamp, L.A., PROC Jan 96* 87-88
Neural Networks for Optimization and Signal Processing (Cichocki, A., and Unbehauen, R.; 1993). *Swiniarski, R.W., PROC Jul 95* 1106
Neural Networks for Signal Processing (Kosko, B., Ed.; 1992). *Williams, R.J., PROC Oct 95* 1432-1433
Optimal Control Theory for Infinite Dimensional Systems (Li, X., and Yong, J.; 1995). *Lenhart, S., PROC Feb 97* 338-339
Optimization and Dynamical Systems (Helmke, U., and Moore, J.; 1994). *Faybusovich, L., PROC Jun 96* 907-908
Parallel Computation Systems for Robotics Algorithms and Architectures (Fijany, A., and Bejczy, A., Eds.; 1992). *Sharf, I., PROC Aug 95* 1196-1197
Parallel Logic Programming (Takeuchi, A.; 1992). *Mikolajczak, B., PROC Mar 95* 488
Predictive Control: A Unified Approach (Soeterboek, R.; 1992). *Toumodge, S., PROC Aug 95* 1198-1199
Process Control Engineering (Rao, M., and Qui, H.; 1993). *Zhou, M.C., PROC Nov 95* 1592-1593
Project Management: Engineering, Technology, and Implementation (Shtub, A., etal.; 1994). *Klastorin, T.D., PROC Dec 95* 1513
Project Management in Manufacturing and High Technology Management, 2nd edn. (Badiru, A.B.; 1996). *Pinto, J.K., PROC Nov 97* 1875

Qualitative Theory of Dynamical Systems: The Role of Stability Preserving Mappings (Michel, A.N., and Wang, K.; 1995). *Sandberg, I.W., PROC Jan 97* 198-199
Review of Computatational Intelligence Imitating Life (Zurada, J.M., et al., Eds.; 1994). *Fogel, D.B., PROC Nov 95* 1588-1591
Robotics and Remote Systems for Hazardous Environments (Jamshidi, M., and Eicker, P., Eds.; 1993). *Maciejewski, A.A., PROC Feb 95* 336-337
Robust Control: Systems with Uncertain Physical Parameters (Ackermann, J., et al.; 1993). *Mansour, M., PROC Oct 96* 1572
SBus: Information, Applications, and Experience (Lyle, J.D.; 1992). *Zalevsky, J., PROC Apr 95* 694
Software Quality Management - A Pro-active Approach (Brinkworth, J.W.O.; 1992). *Freuhauf, K., PROC Mar 95* 488-489
Stability Theory (Parks, P.C., and Hahn, V.; 1993). *Elliott, D.L., PROC May 96* 799-800
Stochastic Systems for Engineers: Modelling, Estimation and Control (Borrie, J.A.; 1992). *Toumodge, S., PROC Apr 95* 695
Strategic Technology Management (Betz, F.; 1993). *Gaynor, G.H., PROC Mar 96* 500-501
Technology and Strategy: Conceptual Models and Diagnostics (Goodman, R.A., and Lawless, M.W.; 1994). *Pinto, J.K., PROC Nov 96* 1707-1708
The Balanced Scorecard: Translating Strategy into Action (Kaplan, R.S., and Norton, D.P.; 1996). *Dorf, R.C., + , PROC Sep 97* 1509-1510
The Collected Papers of Claude E. Shannon (Sloane, N.J.A., and Wyner, A.D., Eds.; 1993). *Ephremides, A., PROC Oct 96* 1570-1571
The GSM System for Mobile Communications (Mouly, M., and Pautet, M.-B.). *Chia, S., PROC Jun 95* 999-1000
The Icon Book: Visual Symbols for Computer Systems and Documentation (Horton, W.; 1994). *Winn, D., PROC Oct 95* 1429-1430
The Principles of Self-Support in Control Systems (Novakovic, Z.R.; 1992). *Toumodge, S., PROC Apr 95* 696-697
The Wiley Project Engineer's Desk Reference (Heisler, S.I.; 1994). *Schoch, K.F., Jr., PROC Mar 95* 485
The World in 2020 (McRae, H.; 1994). *Dorf, R.C., PROC Jan 96* 88-89
Universal Compression and Retrieval (Krichevsky, R.; 1994). *Csiszar, I., PROC Jun 95* 1000-1002
Virtual Reality Technology (Burdea, G., and Coiffet, P.; 1994). *Akay, M., PROC Sep 95* 1294
World Class (Kanter, R.M.; 1995). *Dorf, R.C., PROC Jul 96* 1050-1051

Boolean functions
nanoelectronic archit., double-barrier reson. tunneling diode. *Raychowdhury, V.P., + , PROC Apr 97* 574-588

Boundary element methods
defibrillation/pacing electrodes, elec. behavior. *Kim, Y., + , PROC Mar 96* 446-456

Brain
brain functional activity localization, EEG time-freq. anal. *Mingui Sun, + , PROC Sep 96* 1302-1311
cortical region neuronal oscills., EEG activity time-freq. anal. *Haykin, S., + , PROC Sep 96* 1295-1301
human brain NMR image anal. by neural net. *Gelenbe, E., + , PROC Oct 96* 1488-1496
wavelets in biomedical appls. review. *Unser, M., + , PROC Apr 96* 626-638

Broadband communication
ATM public networks, perform. mgt., scaleable and flexible approach. *Azmoodeh, M., + , PROC Oct 97* 1639-1645
communications in the twenty-first century (special issue). *PROC Oct 97* 1519-1661
overview of broadband access technols. *Gagnaire, M., PROC Dec 97* 1958-1972
self-organizing broadband transport networks. *Grover, W.D., PROC Oct 97* 1582-1611
telecomms. and data networks signaling. *Kant, K., + , PROC Oct 97* 1612-1621

Broadband communication; cf. Asynchronous transfer mode; B-ISDN; Cable TV

Broadcasting; cf. Radio broadcasting; TV broadcasting

Burst switching
asynchronous design methodologies, overview. *Hauck, S., PROC Jan 95* 69-93

Business
book review; World Class (Kanter, R.M.; 1995). *Dorf, R.C., PROC Jul 96* 1050-1051
new commun. services, society needs. *Lucky, R.W., PROC Oct 97* 1536-1543
testbed for twenty-first century. *Henning, I., + , PROC Oct 97* 1572-1581

Business communication
interactive TV, residential consumer video service. *Blahut, D.E., + , PROC Jul 95* 1071-1085

Business data processing; cf. Financial data processing

Business planning
present and future service demand, dyn. modeling. *Lyons, M.H., + , PROC Oct 97* 1544-1555

C

Cable TV
interactive TV, residential consumer video service. *Blahut, D.E., + , PROC Jul 95* 1071-1085

CAD (computer-aided design); cf. Design automation

Calibration
ACTS propag. expt. for Ka-band satellite commun. syst. design. *Crane, R.K., + , PROC Jun 97* 863-878
corrections to "Precision DSN radiometer systems: impact on microwave calibrations" (May 94 776-787). *Stelzried, C.T., + , PROC Aug 96* 1187

Cancer
cancer risk assess., weak EM fields. *Foster, K.R., + , PROC May 97* 733-746

Carbon dioxide lasers
CO_2 range-Doppler imaging laser radar component technol. *Melngailis, I., + , PROC Feb 96* 227-267
XTRS LADAR, model-based automatic target recogn. syst. *Verly, J.G., + , PROC Feb 96* 126-163

Cardiac pacemakers
cardiac pacing electrodes, pulse generator/lead perform. *Stokes, K., PROC Mar 96* 457-467
electrical therapy of cardiac arrhythmias (special issue). *PROC Mar 96* 331-499
external defibrillators/emergency external pacemakers. *Charbonnier, F.M., PROC Mar 96* 487-499
implantable pacemakers, size reduction/reliab. improvement. *Sanders, R.S., + , PROC Mar 96* 480-486

Cardiography
wavelets in biomedical appls. review. *Unser, M., + , PROC Apr 96* 626-638

Cardiovascular system
arrhythmia treatment, elec./RF ablation, review. *McRury, I.D., + , PROC Mar 96* 404-416
arrhythmogenesis, computer models, tissue struct./membrane dyn. roles. *Henriquez, C.S., + , PROC Mar 96* 334-354
defibrillation/cardioversion mechanism. *Jones, J.L., + , PROC Mar 96* 392-403
defibrillation/pacing electrodes, elec. behavior. *Kim, Y., + , PROC Mar 96* 446-456
elec. fields, detrimental effects on cardiac muscle. *Tung, L., PROC Mar 96* 366-378
elec. stimulation laws for cardiac tissue. *Tacker, W.A., + , PROC Mar 96* 355-365
electrical therapy of cardiac arrhythmias (special issue). *PROC Mar 96* 331-499
myocardial tissue, externally applied elec. fields effect. *Roth, B.J., + , PROC Mar 96* 379-391
skeletal muscle/cardiac vibrs., time-freq. anal. *Wood, J.C., + , PROC Sep 96* 1281-1294

Cardiovascular system, prostheses/orthoses; cf. Cardiac pacemakers; Defibrillators

Careers; cf. Biographies; Engineering profession

CCITT
MPEG integrated audiovisual coding std., develop. *Chiariglione, L., PROC Feb 95* 151-157
telephone loop plant, technol./appls. *Lin, D.W., + , PROC Feb 95* 175-193
video coding stds., ref. model methodology. *Okubo, S., PROC Feb 95* 139-150
VLSI archits. for video compression, survey. *Pirsch, P., + , PROC Feb 95* 220-246

Cellular automata
QCA, quantum-dot cellular automata, pipelined archit. appl. *Lent, C.S., + , PROC Apr 97* 541-557

Cellular land mobile radio; cf. Land mobile radio cellular systems

Cellular logic arrays
low-power RAM cct. technol. trends. *Itoh, K., + , PROC Apr 95* 524-543
nanoelectronics, quantum-effect devices, fault tolerance, design. *Goser, K.F., + , PROC Apr 97* 558-573

Channel bank filters
corrections to "Emerging applications of multirate signal processing and wavelets in digital communications" (Apr 96 586-603). *Wornell, G.W., PROC Aug 96* 1187-1188
digital commun., multirate sig. proc. and wavelets appls. *Wornell, G.W., PROC Apr 96* 586-603

wavelets, subband coding, and best bases. *Ramchandran, K., + , PROC Apr 96* 541-560
Chaos
power syst. voltage collapse modelling, bifurcation theory-based. *Chin-Woo Tan, + , PROC Nov 95* 1484-1496
radar detect. of sigs. in chaos, small target in sea clutter. *Haykin, S., + , PROC Jan 95* 95-122
Charge carrier processes; cf. Hot carriers
Charge coupled image sensors
cameras and display systs., rel., digital TV. *Hashimoto, Y., + , PROC Jul 95* 1032-1043
Chemical transducers
civ. engng. smart structs., distrib. fiber optic technols. *Culshaw, B., + , PROC Jan 96* 78-86
Chemistry
mol. motion control. *Dahleh, M., + , PROC Jan 96* 7-15
Choppers
CMOS op-amp imperfections reduction, autozeroing, correl. double sampling, chopper stabil. *Enz, C.C., + , PROC Nov 96* 1584-1614
Circuit analysis
John R. Carson, career/contribs. *Brittain, J.E., PROC Jun 96* 909-910
Circuit noise; cf. Integrated circuit noise
Circuit optimization
digital CMOS ccts., power consumption minimization. *Chandrakasan, A.P., + , PROC Apr 95* 498-523
Circuit reliability; cf. Integrated circuit reliability
Circuits; cf. Counting circuits; Integrated circuit...; Logic circuits
Circuit stability
CMOS op-amp imperfections reduction, autozeroing, correl. double sampling, chopper stabil. *Enz, C.C., + , PROC Nov 96* 1584-1614
Circuit synthesis
ENIAC electronic computing ccts., review. *Schneck, P.B., PROC Jul 97* 1169-1171
Circuit topology
digital CMOS ccts., power consumption minimization. *Chandrakasan, A.P., + , PROC Apr 95* 498-523
distributed detect. with multiple sens., fund. *Viswanathan, R., + , PROC Jan 97* 54-63
Closed loop systems
book review; Loop Transfer Recovery: Analysis and Design (Saberti, A., et al.; 1993. *Stoustrup, J., PROC Feb 97* 337-338
Clutter; cf. Radar clutter
CMOS analog integrated circuits
op-amp imperfections reduction, autozeroing, correl. double sampling, chopper stabil. *Enz, C.C., + , PROC Nov 96* 1584-1614
CMOS digital integrated circuits
high-end proc., CMOS and bipolar, perform. trends. *Sai-Halasz, G.A., PROC Jan 95* 20-36
portable video-on-demand syst. in wireless commun. *Meng, T.H., + , PROC Apr 95* 659-680
power consumption minimization, cct. optim. *Chandrakasan, A.P., + , PROC Apr 95* 498-523
scaling, low-power design, logic appls., next decade. *Davari, B., + , PROC Apr 95* 595-606
technol. challenges for integrat. near and below 0.1 μm design rule. *Asai, S., + , PROC Apr 97* 505-520
CMOSFET circuits; cf. CMOS integrated circuits
CMOSFET logic devices
Si scaled submicron ultra-low power CMOS technol. *Stork, J.M.C., PROC Apr 95* 607-618
VLSI for digital HDTV. *Mlynek, D.J., + , PROC Jul 95* 1055-1070
CMOSFETs
UHV STM nanofabrication, nanolithography tool, selective oxid., metallization. *Lyding, J.W., PROC Apr 97* 589-600
CMOSFETs; cf. CMOS integrated circuits
CMOS integrated circuits
low-power electronics (special issue). *PROC Apr 95* 495-693
low-power RF ICs for portable commun., all-CMOS radio. *Abidi, A.A., PROC Apr 95* 544-569
scaling into nanometer regime, fund. phys. effects, practicality. *Yuan Taur, + , PROC Apr 97* 486-504
VLSI archits. for video compression, survey. *Pirsch, P., + , PROC Feb 95* 220-246
CMOS integrated circuits; cf. CMOS digital integrated circuits
CMOS memory integrated circuits
low-power RAM cct. technol. trends. *Itoh, K., + , PROC Apr 95* 524-543
Si scaled submicron ultra-low power CMOS technol. *Stork, J.M.C., PROC Apr 95* 607-618
Codecs
VLSI for digital HDTV. *Mlynek, D.J., + , PROC Jul 95* 1055-1070
Code division multiaccess
corrections to "Emerging applications of multirate signal processing and wavelets in digital communications" (Apr 96 586-603). *Wornell, G.W., PROC Aug 96* 1187-1188
digital commun., multirate sig. proc. and wavelets appls. *Wornell, G.W., PROC Apr 96* 586-603
satellite CDMA transm. for mobile and pers. commun. *De Gaudenzi, R., + , PROC Jan 96* 18-39
Code division multiplexing
satellite CDMA transm. for mobile and pers. commun. *De Gaudenzi, R., + , PROC Jan 96* 18-39
Coding/decoding; cf. Cryptography; Multidimensional coding; Source coding
Cognitive science
semiotic paradigm for hypermedia data and coding models. *Gonzalez, R., PROC Jul 97* 1111-1140
Collaborative work
distributed interactive simul. environ. *Hofer, R.C., + , PROC Aug 95* 1124-1137
distributed interactive simul., nondefense training/education appls. *Fitzsimmons, E.A., + , PROC Aug 95* 1179-1187
Combinational logic circuits
Boolean logic, nanoelectronic archit., double-barrier reson. tunneling diode. *Roychowdhury, V.P., + , PROC Apr 97* 574-588
Communication channels; cf. Fading channels; Multicast channels; Multipath channels
Communication equipment
Edwin H. Colpitts, career/contribs. *Brittain, J.E., PROC Jun 97* 1020-1021
Communication equipment; cf. Optical communication equipment; Radio communication equipment; Telephone equipment
Communication industry
new commun. services, society needs. *Lucky, R.W., PROC Oct 97* 1536-1543
present and future service demand, dyn. modeling. *Lyons, M.H., + , PROC Oct 97* 1544-1555
Communication standards
digital audio coding for visual commun. *Noll, P., PROC Jun 95* 925-943
digital video coding stds., video commun. role. *Schafer, R., + , PROC Jun 95* 907-924
distributed interactive simul., networking technol. *Pullen, J.M., + , PROC Aug 95* 1156-1167
HDTV digital systs., stds., proc. and coding. *Ninomiya, Y., PROC Jul 95* 1086-1093
JAGUAR, pipelined VLSI archit. for JPEG image compression. *Kovac, M., + , PROC Feb 95* 247-258
wireless commun. in twenty-first century. *Shafi, M., + , PROC Oct 97* 1622-1638
Communication switching
IP switching for scalable IP services. *Ahmed, H.M., + , PROC Dec 97* 1984-1997
tag switching archit. overview. *Rekhter, Y., + , PROC Dec 97* 1973-1983
Communication switching; cf. Asynchronous transfer mode; Burst switching; Packet switching
Communication system control
self-organizing broadband transport networks. *Grover, W.D., PROC Oct 97* 1582-1611
Communication system economics
satellite commun. develop. *Wu, W.W., PROC Jun 97* 998-1010
Communication system interfaces
pers. communicators, batt.-powered, trends. *Warwick, C.W., PROC Apr 95* 681-686
Communication system nonlinearities
long-dist. lightwave telecomms., opt. fiber amps. *Giles, R., + , PROC Jun 96* 870-883
Communication system operations and management
ATM public networks, perform. mgt., scaleable and flexible approach. *Azmoodeh, M., + , PROC Oct 97* 1639-1645
communications in the twenty-first century (special issue). *PROC Oct 97* 1519-1661
communications in the twenty-first century, special issue intro. *Cochrane, P., PROC Oct 97* 1519-1522
data networks signaling. *Kant, K., + , PROC Oct 97* 1612-1621
heterog. servers network, service provision, user selection. *Olafsson, S., PROC Oct 97* 1556-1562
new commun. services, society needs. *Lucky, R.W., PROC Oct 97* 1536-1543
packet-switching networks, service disciplines for guaranteed perform. *Hui Zhang, PROC Oct 95* 1374-1396
pers. commun. systs., review. *Li, V.O.K., + , PROC Sep 95* 1210-1243
present and future service demand, dyn. modeling. *Lyons, M.H., + , PROC Oct 97* 1544-1555

self-organizing broadband transport networks. *Grover, W.D., PROC Oct 97* 1582-1611
tag switching archit. overview. *Rekhter, Y., + , PROC Dec 97* 1973-1983
Communication system operations and management; cf. Computer network management
Communication system performance
advanced TV systs. for terrestrial broadcasting, problems and solns. *Schreiber, W.F., PROC Jun 95* 958-981
ATM public networks, perform. mgt., scaleable and flexible approach. *Azmoodeh, M., + , PROC Oct 97* 1639-1645
delay perform. anal. of new Internet services with guaranteed QoS. *van der Wal, K., + , PROC Dec 97* 1947-1957
integrated services in Internet, state of art. *White, P.P., + , PROC Dec 97* 1934-1946
laser satellite commun. network, vibr. effect and solns. *Arnon, S., + , PROC Oct 97* 1646-1661
packet-switching networks, service disciplines for guaranteed perform. *Hui Zhang, PROC Oct 95* 1374-1396
teletraffic engng. in broadband era. *Michiel, H., + , PROC Dec 97* 2007-2033
Communication system performance; cf. Computer network performance
Communication system planning
present and future service demand, dyn. modeling. *Lyons, M.H., + , PROC Oct 97* 1544-1555
testbed for twenty-first century. *Henning, I., + , PROC Oct 97* 1572-1581
Communication system reliability
self-organizing broadband transport networks. *Grover, W.D., PROC Oct 97* 1582-1611
Communication system routing
internetworking based on cell switch router - archit. and protocol review. *Katsube, Y., + , PROC Dec 97* 1998-2006
Communication systems
book review; Communication Systems Engineering (Proakis, and Salehi; 1994). *Milstein, L.B., PROC Mar 95* 486
computing and telecomms. technols., convergence. *Messerschmitt, D.G., PROC Aug 96* 1167-1186
John R. Stone, career/contribs. *Brittain, J.E., PROC Oct 96* 1573-1574
Communication systems; cf. Broadband communication; Business communication; CCITT; Computer networks; Data communication; Digital communication; Image communication; Intelligent networks; Military communication; Mobile communication; Multiaccess communication; Multimedia communication; Optical communication; Radio communication; Space vehicle communication; Speech communication; Teleconferencing; Telegraphy; Videophone systems
Communication system security; cf. Computer network security
Communication system signaling
communications in the twenty-first century (special issue). *PROC Oct 97* 1519-1661
communications in the twenty-first century, special issue intro. *Cochrane, P., PROC Oct 97* 1519-1522
data networks signaling. *Kant, K., + , PROC Oct 97* 1612-1621
Communication system software
ATM network traffic mgt. by neural net. *Habib, I.W., PROC Oct 96* 1430-1441
ATM public networks, perform. mgt., scaleable and flexible approach. *Azmoodeh, M., + , PROC Oct 97* 1639-1645
convergence of telecomms. and computing technols. *Messerschmitt, D.G., PROC Aug 96* 1167-1186
CoWare hardware-software codesign tool for digital telecom systs. *Bolsens, I., + , PROC Mar 97* 391-418
embedded software design tools, real-time sig. proc. systs. *Goossens, G., + , PROC Mar 97* 436-454
embedded software in real-time sig. proc., telecom appl. *Paulin, P.G., + , PROC Mar 97* 419-435
telephone network traffic neural net mgt. *Ambrose, B.E., + , PROC Oct 96* 1421-1429
Communication system traffic
ATM network traffic mgt. by neural net. *Habib, I.W., PROC Oct 96* 1430-1441
data networks signaling. *Kant, K., + , PROC Oct 97* 1612-1621
distributed interactive simul., networking technol. *Pullen, J.M., + , PROC Aug 95* 1156-1167
Internet data anal., status and community challenges. *Claffy, K., + , PROC Oct 97* 1563-1571
network traffic neural net mgt. *Ambrose, B.E., + , PROC Oct 96* 1421-1429
self-organizing broadband transport networks. *Grover, W.D., PROC Oct 97* 1582-1611
tag switching archit. overview. *Rekhter, Y., + , PROC Dec 97* 1973-1983
teletraffic engng. in broadband era. *Michiel, H., + , PROC Dec 97* 2007-2033
testbed for twenty-first century. *Henning, I., + , PROC Oct 97* 1572-1581
Communication terminals; cf. Satellite communication earth terminals
Compensation
CMOS op-amp imperfections reduction, autozeroing, correl. double sampling, chopper stabil. *Enz, C.C., + , PROC Nov 96* 1584-1614
Complementary circuits; cf. CMOS integrated circuits
Complexity theory
distributed detect. with multiple sens., fund. *Viswanathan, R., + , PROC Jan 97* 54-63
fuzzy control, hardware soln. *Costa, A., + , PROC Mar 95* 422-434
human and machine recogn. of faces, survey. *Chellappa, R., + , PROC May 95* 705-741
PAC learning fn. approx., feedforward sigmoidal nets. *Rao, N.S.V., + , PROC Oct 96* 1562-1569
Computer-aided design; cf. Design automation
Computer aided engineering; cf. Computer aided software engineering
Computer aided software engineering
CoWare hardware-software codesign tool for digital telecom systs. *Bolsens, I., + , PROC Mar 97* 391-418
Computer applications
automated biometrics (special issue). *PROC Sep 97* 1343-1492
automated biometrics, special issue intro. *Shen, W., + , PROC Sep 97* 1343-1347
Computer applications; cf. Design automation; Military computing; Neural network applications
Computer architecture
embedded software design tools, real-time sig. proc. systs. *Goossens, G., + , PROC Mar 97* 436-454
prog. tech. influence. *Hopper, G.M., + , PROC Mar 97* 470-474
reactive real-time embedded syst. design, formal models. *Edwards, S., + , PROC Mar 97* 366-390
sens. fusion pot. exploitation, archits. and appls. *Dasarathy, B.V., PROC Jan 97* 24-38
UltraSPARC-I μP, microarchitecture design. *Tremblay, M., + , PROC Dec 95* 1653-1663
Computer architecture; cf. Memory architecture; Parallel architectures
Computer communication; cf. Computer networks; Data communication
Computer graphics
correction to "Wavelets in computer graphics" (Apr 96 615-625). *Schroder, P., PROC Aug 96* 1188
wavelets in computer graphics. *Schroder, P., PROC Apr 96* 615-625
Computer graphics; cf. Visualization
Computer instructions
computer design, prog. tech. influence. *Hopper, G.M., + , PROC Mar 97* 470-474
embedded software in real-time sig. proc., telecom appl. *Paulin, P.G., + , PROC Mar 97* 419-435
Computer languages; cf. Visual languages
Computer network management
testbed for twenty-first century. *Henning, I., + , PROC Oct 97* 1572-1581
Computer network performance
Internet data anal., status and community challenges. *Claffy, K., + , PROC Oct 97* 1563-1571
Computer networks
book review; Fundamentals of Telecommunication Networks (Saadawi, T.N., et al.; 1994). *Robertazzi, T., PROC Aug 95* 1197-1198
convergence of telecomms. and computing to networking models for integrated services and appls. *Decina, M., + , PROC Dec 97* 1887-1914
telecomms. and computing technols., convergence. *Messerschmitt, D.G., PROC Aug 96* 1167-1186
WDM opt. fiber networks, opt. components, review. *Borella, M.S., + , PROC Aug 97* 1274-1307
Computer networks; cf. Internet; Local area networks
Computer network security
security issues in networks with Internet access. *Landwehr, C.E., + , PROC Dec 97* 2034-2051
Computer performance
high-end proc., CMOS and bipolar, perform. trends. *Sai-Halasz, G.A., PROC Jan 95* 20-36
Computer pipeline processing; cf. Pipeline processing
Computers
electronic computing ccts. of ENIAC (reprinted from Proc., IRE vol., 35, no. 8, pp. 756-767, Aug. 1947. *Burks, A.W., PROC Jul 97* 1172-1182
modern review of "Electronic computing circuits of ENIAC" (classic paper reprint, pp. 1172-1182). *Schneck, P.B., PROC Jul 97* 1169-1171
Computers; cf. Distributed computing; Memories; Microcomputers; Optical computing; Parallel processing; Virtual computers
Computer science education
undergraduate degree course in elec. and computer engng., curriculum. *Director, S.W., + , PROC Sep 95* 1246-1269

Computer vision; cf. Machine vision; Object recognition
Concurrent engineering
book review; Concurrent Engineering Design (Miller, L.G.; 1994). *Harper, A., PROC Mar 95* 485-486
Conducting bodies
sig. anal., time-freq. distribs., sonar and radar echoes appl. *Gaunaurd, G.C., + , PROC Sep 96* 1231-1248
Conductors; cf. Stranded conductors
Conjugate gradient methods
antenna arrays appl. to mobile commun., beamforming and DOA aspects. *Godara, L.C., PROC Aug 97* 1195-1245
Contacts; cf. Ohmic contacts
Content-addressable memories; cf. Associative memories
Control engineering
book review; Process Control Engineering (Rao, M., and Qui, H.; 1993). *Zhou, M.C., PROC Nov 95* 1592-1593
Control equipment; cf. Microcontrollers
Control systems
book review; Robust Control: Systems with Uncertain Physical Parameters (Ackermann, J., et al.; 1993). *Mansour, M., PROC Oct 96* 1572
book review; The Principles of Self-Support in Control Systems (Novakovic, Z.R.; 1992). *Toumodge, S., PROC Apr 95* 696-697
Control systems; cf. Aircraft control; Biological control systems; Closed loop systems; Communication system control; Industrial control; Intelligent control; Optimal control; Pointing systems; Power system control; Process control
Cooling
low-power IC design, power conscious CAD tools and methodologies. *Singh, D., + , PROC Apr 95* 570-594
Cooperative work; cf. Collaborative work
Copyright protection
digital TV broadcasting, cryptology. *Macq, B.M., + , PROC Jun 95* 944-957
Correlation
book review; Engineering Applications of Correlation and Spectral Analysis (Bendat, J.S., and Piersol, A.G.; 1993). *Chen, T.-H., PROC Jan 95* 124
Correlators; cf. Optical correlators
Corrosion testing
civ. engng. smart structs., distrib. fiber optic technols. *Culshaw, B., + , PROC Jan 96* 78-86
Cosine transforms; cf. Discrete cosine transforms
Costs; cf. Economics
Counting circuits
ENIAC electronic computing ccts., review. *Schneck, P.B., PROC Jul 97* 1169-1171
Crossed field devices; cf. Magnetrons
Cryptography
digital lightwave transm., scrambling techs. *Byeong Gi Lee, + , PROC Oct 95* 1399-1428
digital TV broadcasting, cryptology. *Macq, B.M., + , PROC Jun 95* 944-957
distributed interactive simul., networking technol. *Pullen, J.M., + , PROC Aug 95* 1156-1167
quantum inform. proc., cryptography/computation/teleportation. *Spiller, T.P., PROC Dec 96* 1719-1746
security issues in networks with Internet access. *Landwehr, C.E., + , PROC Dec 97* 2034-2051
Current
defibrillation/pacing electrodes, elec. behavior. *Kim, Y., + , PROC Mar 96* 446-456
CVD
metalorganic chemical vapor deposition for optoelectronic devices. *Coleman, J.J., PROC Nov 97* 1715-1729
CW radar
coherent laser radar in Europe, ground-based and airborne systs. *Vaughan, J.M., + , PROC Feb 96* 205-226
Cybernetics; cf. Artificial intelligence
Cylinders
air-filled elastic shells, acoustical scatt., structural excitations anal. *Dragonette, L.R., + , PROC Sep 96* 1249-1263

D

Database management systems
sens. fusion automation, database support. *Antony, R.T., PROC Jan 97* 39-53
Database systems; cf. Image databases; Information systems
Data buses
book review; SBus: Information, Applications, and Experience (Lyle, J.D.; 1992). *Zalevsky, J., PROC Apr 95* 694
Data communication
book review; Fundamentals of Telecommunication Networks (Saadawi, T.N., et al.; 1994). *Robertazzi, T., PROC Aug 95* 1197-1198
communications in the twenty-first century (special issue). *PROC Oct 97* 1519-1661
telecomms. and data networks signaling. *Kant, K., + , PROC Oct 97* 1612-1621
testbed for twenty-first century. *Henning, I., + , PROC Oct 97* 1572-1581
Data communication; cf. Computer networks; Integrated services digital networks; Integrated voice-data communication; Land mobile radio data communication; Local area networks; Multiaccess communication
Data compression
advances in image and video compression (special issue). *PROC Feb 95* 135-335
digital audio coding for visual commun. *Noll, P., PROC Jun 95* 925-943
digital TV perspectives. *Netravali, A., + , PROC Jun 95* 834-842
distributed interactive simul., networking technol. *Pullen, J.M., + , PROC Aug 95* 1156-1167
Grand Alliance syst. for US HDTV. *Challapali, K., + , PROC Feb 95* 158-174
HDTV Grand Alliance syst. *Petajan, E., PROC Jul 95* 1094-1105
image/video compression algms., mean field annealing recovery techs. *Ozcelik, T., + , PROC Feb 95* 304-316
JAGUAR, pipelined VLSI archit. for JPEG image compression. *Kovac, M., + , PROC Feb 95* 247-258
low bit rate video compression by neural net. *Cramer, C., + , PROC Oct 96* 1529-1543
med. image lossy compression by neural net. *Panagiotidis, N.G., + , PROC Oct 96* 1474-1487
radiologic image compression, review. *Wong, S., + , PROC Feb 95* 194-219
self-organizing map, props., engng. appls. *Kohonen, T., + , PROC Oct 96* 1358-1384
VLSI archits. for video compression, survey. *Pirsch, P., + , PROC Feb 95* 220-246
wavelets, subband coding, and best bases. *Ramchandran, K., + , PROC Apr 96* 541-560
Data compression; cf. Source coding
Data conversion
multirate analog-digital systems for signal processing and conversion, prolog. *Self, K., PROC Feb 97* 240-241
Data conversion; cf. Analog-digital conversion; Digital-analog conversion
Data flow computing
image proc., block data parallel archit. *Alexander, W.E., + , PROC Jul 96* 947-968
sig. proc. software environ. *Lee, E.A., + , PROC May 95* 773-801
Data processing
smart struct., sens. and proc. *Spillman, W.B., Jr., PROC Jan 96* 68-77
Data processing; cf. Financial data processing; Government data processing; Military data processing; Optical data processing
Data security; cf. Cryptography
Data structures; cf. Spatial data structures
Data transmission; cf. Data communication
DCT; cf. Discrete cosine transforms
Decision making; cf. Military decision-making; Pattern classification; Signal detection
Decoding
opt. scanning holography, tutorial. *Ting-Chung Poon, + , PROC May 96* 753-764
portable video-on-demand syst. in wireless commun. *Meng, T.H., + , PROC Apr 95* 659-680
VLSI archits. for video compression, survey. *Pirsch, P., + , PROC Feb 95* 220-246
Defibrillators
cardiac elec. activity, response, elec. stimuli. *Knisley, S.B., + , PROC Mar 96* 417-427
defibrillation/pacing electrodes, elec. behavior. *Kim, Y., + , PROC Mar 96* 446-456
electrical therapy of cardiac arrhythmias (special issue). *PROC Mar 96* 331-499
external defibrillators/emergency external pacemakers. *Charbonnier, F.M., PROC Mar 96* 487-499
implantable cardioverter defibrillators, detect. algms. *Jenkins, J.M., + , PROC Mar 96* 428-445
implantable cardioverter defibrillators, elec. design challenges. *Warren, J.A., + , PROC Mar 96* 468-479

Delay effects
asynchronous design methodologies, overview. *Hauck, S., PROC Jan 95* 69-93
Boolean logic, nanoelectronic archit., double-barrier reson. tunneling diode. *Raychowdhury, V.P., + , PROC Apr 97* 574-588
delay perform. anal. of new Internet services with guaranteed QoS. *van der Wal, K., + , PROC Dec 97* 1947-1957
packet-switching networks, service disciplines for guaranteed perform. *Hui Zhang, PROC Oct 95* 1374-1396
Design automation
book review; How to Design a Single Phase Motor on a Personal Computer, 4th edn. (Veinott, C.). *Salon, S., PROC Mar 95* 485
book review; The Wiley Project Engineer's Desk Reference (Heisler, S.I.; 1994). *Schoch, K.F., Jr., PROC Mar 95* 485
CoWare hardware-software codesign tool for digital telecom systs. *Bolsens, I., + , PROC Mar 97* 391-418
design data mgt., CAD frameworks. *van den Hamer, P., + , PROC Jan 96* 42-56
hardware/software co-design. *De Michell, G., + , PROC Mar 97* 349-365
low-power IC design, power conscious CAD tools and methodologies. *Singh, D., + , PROC Apr 95* 570-594
Design methodology
book review; Concurrent Engineering Design (Miller, L.G.; 1994). *Harper, A., PROC Mar 95* 485-486
data mgt., CAD frameworks. *van den Hamer, P., + , PROC Jan 96* 42-56
implantable cardioverter defibrillators, elec. design challenges. *Warren, J.A., + , PROC Mar 96* 468-479
Detection; cf. Fault diagnosis; Signal detection
Detectors
proc. machine monitoring sens., vibr. anal., time-freq. anal. *Atlas, L.E., + , PROC Sep 96* 1319-1329
Diagnosis; cf. Fault diagnosis; Medical diagnosis
Dielectric bodies
sig. anal., time-freq. distribs., sonar and radar echoes appl. *Gaunaurd, G.C., + , PROC Sep 96* 1231-1248
Dielectric materials
HT insulators, dielec. props. and radio appl. *Hills, S.M., PROC Feb 97* 314-322
Differential equations
colored noise and stochastic procs. and $1/f^{\alpha}$ power law noise generation, discrete simul. *Kasdin, N.J., PROC May 95* 802-827
power syst. voltage stabil. anal., local bifurcation theory-based. *Kwatny, H.G., + , PROC Nov 95* 1456-1483
Diffraction; cf. Electromagnetic diffraction
Digital-analog conversion
multirate analog-digital systs. for sig. proc./conversion. *Franca, J., + , PROC Feb 97* 242-262
Digital arithmetic
modified sign digit no. representation, opt. computing/interconnects. *Yatagai, T., + , PROC Jun 96* 828-852
Digital communication
audio coding for visual commun. *Noll, P., PROC Jun 95* 925-943
CoWare hardware-software codesign tool for digital telecom systs. *Bolsens, I., + , PROC Mar 97* 391-418
IR wireless high-speed short-range digital commun. *Kahn, J.M., + , PROC Feb 97* 265-298
overview of broadband access technols. *Gagnaire, M., PROC Dec 97* 1958-1972
Digital communication; cf. Digital radio; ISDN; Source coding
Digital filters
book review; Handbook for Digital Signal Processing (Mitra, S.K., and Kaiser, J.F., Eds.; 1993). *Shenoi, B.A., PROC Aug 95* 1199-1200
Digital filters; cf. Multidimensional digital filters; Quadrature mirror filters
Digital image processing; cf. Image processing
Digital integrated circuits; cf. Mixed analog-digital integrated circuits
Digital modulation
coded orthogonal FDM, TV broadcasting appl. *Le Floch, B., + , PROC Jun 95* 982-996
Digital modulation; cf. Amplitude shift keying
Digital radio
corrections to "Emerging applications of multirate signal processing and wavelets in digital communications" (Apr 96 586-603). *Wornell, G.W., PROC Aug 96* 1187-1188
multirate sig. proc. and wavelets appl. *Wornell, G.W., PROC Apr 96* 586-603
satellite CDMA transm. for mobile and pers. commun. *De Gaudenzi, R., + , PROC Jan 96* 18-39
Digital radio; cf. Spread spectrum communication
Digital signal processors
JAGUAR, pipelined VLSI archit. for JPEG image compression. *Kovac, M., + , PROC Feb 95* 247-258
modular massively parallel computing approach, image-related proc. *Krikelis, A., + , PROC Jul 96* 988-1004
portable video-on-demand syst. in wireless commun. *Meng, T.H., + , PROC Apr 95* 659-680
VLSI archits. for video compression, survey. *Pirsch, P., + , PROC Feb 95* 220-246
VLSI for digital HDTV. *Mlynek, D.J., + , PROC Jul 95* 1055-1070
Digital transmission; cf. Digital communication
Digital TV
coded orthogonal FDM, TV broadcasting appl. *Le Floch, B., + , PROC Jun 95* 982-996
digital television, part 2: hardware and applications (special issue). *PROC Jul 95* 1007-1105
digital television, part I: enabling technologies (special issue). *PROC Jun 95* 831-996
digital video coding stds., video commun. role. *Schafer, R., + , PROC Jun 95* 907-924
HDTV digital systs., stds., proc. and coding. *Ninomiya, Y., PROC Jul 95* 1086-1093
HDTV Grand Alliance syst. *Petajan, E., PROC Jul 95* 1094-1105
motion estim. techs., review. *Dufaux, F., + , PROC Jun 95* 858-876
TV broadcasting, cryptology. *Macq, B.M., + , PROC Jun 95* 944-957
TV perspectives. *Netravali, A., + , PROC Jun 95* 834-842
VLSI for digital HDTV. *Mlynek, D.J., + , PROC Jul 95* 1055-1070
Diode lasers; cf. Semiconductor lasers
Direction of arrival estimation
antenna arrays appl. to mobile commun., beamforming and DOA aspects. *Godara, L.C., PROC Aug 97* 1195-1245
Discrete cosine transforms
Grand Alliance syst. for US HDTV. *Challapali, K., + , PROC Feb 95* 158-174
image proc., block data parallel archit. *Alexander, W.E., + , PROC Jul 96* 947-968
JAGUAR, pipelined VLSI archit. for JPEG image compression. *Kovac, M., + , PROC Feb 95* 247-258
VLSI archits. for video compression, survey. *Pirsch, P., + , PROC Feb 95* 220-246
Discrete event simulation
colored noise and stochastic procs. and $1/f^{\alpha}$ power law noise generation, discrete simul. *Kasdin, N.J., PROC May 95* 802-827
Discrete-time filters; cf. Digital filters
Discrete transforms
wavelets and study of distant Universe. *Bijaoui, A., + , PROC Apr 96* 670-679
wavelets, math. background. *Cohen, A., + , PROC Apr 96* 514-522
Discrete transforms; cf. Discrete cosine transforms
Disk recording
principles and techs. of opt. data storage. *Mansuripur, M., + , PROC Nov 97* 1780-1796
Disk recording; cf. Magnetic disk recording
Display human factors
3D TV research, present status. *Motoki, T., + , PROC Jul 95* 1009-1021
virtual reality, vision/motion research activities. *Ohzu, H., + , PROC May 96* 782-798
Displays
cameras and display systs., rel., digital TV. *Hashimoto, Y., + , PROC Jul 95* 1032-1043
electrooptic displays for opt. inform. proc. *Karim, M.A., + , PROC Jun 96* 814-827
optoelectronics technology (special issue). *PROC Nov 97* 1671-1874
optoelectronics technology, special issue intro. *Lo, Y.-H., PROC Nov 97* 1671-1672
Displays; cf. Computer graphics; Flat panel displays; Large-screen displays; Liquid crystal displays; Plasma displays; Three-dimensional displays; TV displays
Distortion; cf. Jitter; Optical distortion
Distributed computing
ATM public networks, perform. mgt., scaleable and flexible approach. *Azmoodeh, M., + , PROC Oct 97* 1639-1645
Defense Department, distributed interactive simul. technol. appl. *Shiflett, J.E., + , PROC Aug 95* 1168-1178
distributed interactive simulation (special issue). *PROC Aug 95* 1111-1195
distributed interactive simul., future technol. challenges. *Reddy, R., + , PROC Aug 95* 1188-1195
distributed interactive simul., networking technol. *Pullen, J.M., + , PROC Aug 95* 1156-1167
review of distributed multimedia systs. *Li, V.O.K., + , PROC Jul 97* 1063-1108
warfare modeling and simul., distributed interactive simul. *Davis, P.K., PROC Aug 95* 1138-1155

Distributed computing; cf. Internet
Distributed detection
data fusion (special issue). *PROC Jan 97* 3-183
data fusion, special issue intro. *Varshney, P.K., PROC Jan 97* 3-5
distributed detect. with multiple sens., fund. *Viswanathan, R., + , PROC Jan 97* 54-63
distributed detect. with multiple sens., review. *Blum, R.S., + , PROC Jan 97* 64-79
Distributed estimation
distributed fusion archits. and algms. for target tracking. *Liggins, M.E., II, + , PROC Jan 97* 97-109
Diversity methods
three-site space-diversity expt., 20 GHz, ACTS. *Goldhirsh, J., + , PROC Jun 97* 970-980
Diversity methods; cf. Land mobile radio diversity systems
DNA
GRAIL, multi-agent neural net gene ident. syst. *Ying Xu, + , PROC Oct 96* 1544-1552
Doping; cf. Integrated circuit doping; Semiconductor device doping
Doppler radar
CO_2 range-Doppler imaging laser radar component technol. *Melngailis, I., + , PROC Feb 96* 227-267
DRAM chips
low-power RAM cct. technol. trends. *Itoh, K., + , PROC Apr 95* 524-543
Si scaled submicron ultra-low power CMOS technol. *Stork, J.M.C., PROC Apr 95* 607-618
Drugs
lasers and optics in health care. *Deutsch, T.F., PROC Nov 97* 1797-1816
Dynamic programming
book review; Optimal Control Theory for Infinite Dimensional Systems (Li, X., and Yong, J.; 1995). *Lenhart, S., PROC Feb 97* 338-339
Dynamic response; cf. Transient response
Dynamics
book review; Optimization and Dynamical Systems (Helmke, U., and Moore, J.; 1994). *Faybusovich, L., PROC Jun 96* 907-908
book review; Qualitative Theory of Dynamical Systems: The Role of Stability Preserving Mappings (Michel, A.N., and Wang, K.; 1995). *Sandberg, I.W., PROC Jan 97* 198-199

E

Economics
book review; The World in 2020 (McRae, H.; 1994). *Dorf, R.C., PROC Jan 96* 88-89
Economics; cf. Communication system economics
Education; cf. Computer science education
Educational technology
digital audio coding for visual commun. *Noll, P., PROC Jun 95* 925-943
distributed interactive simul., nondefense training/education appls. *Fitzsimmons, E.A., + , PROC Aug 95* 1179-1187
MPEG integrated audiovisual coding std., develop. *Chiariglione, L., PROC Feb 95* 151-157
Educational TV
interactive TV, digital actors. *Magnenat Thalmann, N., + , PROC Jul 95* 1022-1031
Electrical engineering
IRE Proceedings 1913-1937, elec. and electronics engng. evoln. *Brittain, J.E., PROC Dec 96* 1747-1772
IRE proceedings, 1938-1962. *Brittain, J.E., PROC May 97* 762-797
Electrical engineering; cf. Control engineering
Electrical engineering education
undergraduate degree course in elec. and computer engng., curriculum. *Director, S.W., + , PROC Sep 95* 1246-1269
Vladimir Karapetoff, career/contribs. *Brittain, J.E., PROC Oct 97* 1662-1663
Electric field effects
cardiac muscle, detrimental effects of elec. fields. *Tung, L., PROC Mar 96* 366-378
myocardial tissue, externally applied elec. fields effect. *Roth, B.J., + , PROC Mar 96* 379-391
Electric machines; cf. Generators; Motors
Electric variables; cf. Impedance
Electric variables control; cf. Power control; Voltage control
Electric variables measurement; cf. Attenuation measurement; Electromagnetic measurements; Impedance measurement; Resistance measurement
Electrobiology; cf. Bioelectric phenomena
Electrocardiography
elec. stimulation, cardiac elec. activity. *Knisley, S.B., + , PROC Mar 96* 417-427
implantable cardioverter defibrillators, detect. algms. *Jenkins, J.M., + , PROC Mar 96* 428-445
wavelets in biomedical appls. review. *Unser, M., + , PROC Apr 96* 626-638
Electrochemical devices; cf. Batteries
Electrodes; cf. Biomedical electrodes; Implantable electrodes
Electroencephalography
brain functional activity localization, EEG time-freq. anal. *Mingui Sun, + , PROC Sep 96* 1302-1311
cortical region neuronal oscills., EEG activity time-freq. anal. *Haykin, S., + , PROC Sep 96* 1295-1301
reduced interf. distribs., biological appls./interps. *Williams, W.J., PROC Sep 96* 1264-1280
wavelets in biomedical appls. review. *Unser, M., + , PROC Apr 96* 626-638
Electroluminescent materials/devices; cf. Light-emitting diodes
Electromagnetic analysis
book review; Computational Methods for Electromagnetics and Microwaves (Booton, R.C.; 1992). *Kuchta, D.M., PROC Jan 95* 123-124
book review; Dyadic Green Functions in Electromagnetic Theory (Tai, C.-T.; 1994). *Eleftheriades, G., PROC Jun 95* 998-999
Electromagnetic atmospheric interference
Ka-band Earth-satellite propag. data, syst. requirements. *Rogers, D.V., + , PROC Jun 97* 810-820
Electromagnetic diffraction
corrections to "comments on diffraction principles and limitations of RCS reduction techniques" (Dec 96 1830-1851). *Ufimtsev, P.Y., PROC Mar 97* 475
RCS reduction, diffr. principles and limitations. *Ufimtsev, P.Y., PROC Dec 96* 1830-1851
Electromagnetic fields
cancer risk assess., weak EM fields. *Foster, K.R., + , PROC May 97* 733-746
corrections to "comments on diffraction principles and limitations of RCS reduction techniques" (Dec 96 1830-1851). *Ufimtsev, P.Y., PROC Mar 97* 475
RCS reduction, diffr. principles and limitations. *Ufimtsev, P.Y., PROC Dec 96* 1830-1851
Electromagnetic interference; cf. Electromagnetic atmospheric interference; Radio spectrum management; TV interference
Electromagnetic measurements
Donald B. Sinclair, contribs. *Brittain, J.E., PROC Jul 95* 1107
Electromagnetic measurements; cf. Antenna measurements; Microwave measurements; Optical measurements
Electromagnetic propagation; cf. Electromagnetic reflection; Microwave propagation; Radio propagation
Electromagnetic propagation in absorbing media
cellular pers. commun., handset antenna/human EM interact. *Jensen, M.A., + , PROC Jan 95* 7-17
Electromagnetic radiation; cf. Antenna radiation patterns
Electromagnetic radiation effects; cf. Biological effects of electromagnetic radiation
Electromagnetic reflection
corrections to "comments on diffraction principles and limitations of RCS reduction techniques" (Dec 96 1830-1851). *Ufimtsev, P.Y., PROC Mar 97* 475
RCS reduction, diffr. principles and limitations. *Ufimtsev, P.Y., PROC Dec 96* 1830-1851
Electromagnetic refraction; cf. Optical refraction
Electromagnetic scattering; cf. Electromagnetic diffraction; Electromagnetic reflection; Electromagnetic scattering by absorbing media; Radar scattering
Electromagnetic scattering by absorbing media
ACTS propag. expt., atten. distrib. obs. and predict. model comparisons. *Crane, R.K., + , PROC Jun 97* 879-892
ACTS propag. expt. for Ka-band satellite commun. syst. design. *Crane, R.K., + , PROC Jun 97* 863-878
corrections to "comments on diffraction principles and limitations of RCS reduction techniques" (Dec 96 1830-1851). *Ufimtsev, P.Y., PROC Mar 97* 475
RCS reduction, diffr. principles and limitations. *Ufimtsev, P.Y., PROC Dec 96* 1830-1851
Electromagnetic spectrum management; cf. Radio spectrum management
Electromyography
reduced interf. distribs., biological appls./interps. *Williams, W.J., PROC Sep 96* 1264-1280
Electron beam lithography
nanostructure fab., electron beam techs. *Matsui, S., PROC Apr 97* 629-643
proximal probes, nanofabrication, STM and AFM. *Snow, E.S., + , PROC Apr 97* 601-611
UHV STM nanofabrication, nanolithography tool, selective oxid., metallization. *Lyding, J.W., PROC Apr 97* 589-600

Electronics
IRE proceedings, 1938-1962. *Brittain, J.E., PROC May 97* 762-797
Electronics; cf. Molecular electronics
Electronics industry
IRE Proceedings 1913-1937, elec. and electronics engng. evoln. *Brittain, J.E., PROC Dec 96* 1747-1772
μP, technol. and business. *Tredennick, N., PROC Dec 95* 1641-1652
Electron tubes
comments on "The pure electron discharge and its applications in radio telegraphy and telephony" (classic paper reprint, pp. 1496-1508). *Birdsall, C.K., PROC Sep 97* 1493-1495
Irving Langmuir, career/contribs. *Brittain, J.E., PROC Sep 95* 1298
Lee de Forest, career/contribs. *Brittain, J.E., PROC Mar 97* 476-477
pure electron discharge and its appls. in radio (reprinted from Proc. of the IRE, vol. 3, no. 3, pp. 261-293, Sept. 1915). *Langmuir, I., PROC Sep 97* 1496-1508
Electron tubes; cf. Magnetrons; Traveling wave tubes
Electrooptic devices
displays for opt. inform. proc. *Karim, M.A., + , PROC Jun 96* 814-827
Electrooptic devices; cf. Integrated optoelectronics
Encoding
digital lightwave transm., scrambling techs. *Byeong Gi Lee, + , PROC Oct 95* 1399-1428
GRAIL, multi-agent neural net gene ident. syst. *Ying Xu, + , PROC Oct 96* 1544-1552
multirate analog-digital systs. for sig. proc./conversion. *Franca, J., + , PROC Feb 97* 242-262
satellite CDMA transm. for mobile and pers. commun. *De Gaudenzi, R., + , PROC Jan 96* 18-39
wavelets, subband coding, and best bases. *Ramchandran, K., + , PROC Apr 96* 541-560
Encoding; cf. Image coding; Source coding
Endfire antennas; cf. Yagi-Uda arrays
Energy storage; cf. Batteries
Engineering
correction to "Fuzzy logic systems for engineering: A tutorial" (Mar 95 345-377). *Mendel, J.M., PROC Sep 95* 1293
fuzzy logic systs. for engng., tutorial. *Mendel, J.M., PROC Mar 95* 345-377
Engineering; cf. Electrical engineering; Mechanical engineering; Structural engineering; Systems engineering
Engineering education; cf. Electrical engineering education
Engineering profession
Allen B. Dumont, career/contribs. *Brittain, J.A., PROC Dec 97* 2081-2082
Benjamin G. Lamme, career/contribs. *Brittain, J.E., PROC Nov 95* 1594-1595
book review; The Collected Papers of Claude E. Shannon (Sloane, N.J.A., and Wyner, A.D., Eds.; 1993). *Ephremides, A., PROC Oct 96* 1570-1571
C.W. Hansell and P.S. Carter, careers/contribs. *Brittain, J.E., PROC Apr 96* 686
develop. of Yagi-Uda arrays. *Brittain, J.E., PROC May 97* 800-801
Donald B. Sinclair, contribs. *Brittain, J.E., PROC Jul 95* 1107
Edith Clarke, career/contribs. *Brittain, J.E., PROC Jan 96* 90
Edward H. Herold, career/contribs. *Brittain, J.E., PROC Nov 97* 1876-1877
Edwin H. Colpitts, career/contribs. *Brittain, J.E., PROC Jun 97* 1020-1021
Ernst F.W. Alexanderson, career/contribs. *Brittain, J.E., PROC Aug 95* 1202
Frank J. Sprague, career/contribs. *Brittain, J.E., PROC Jul 97* 1183-1184
Frederick E. Terman, career/contribs. *Brittain, J.E., PROC Jan 95* 125-126
George H. Brown, brief biog./contribs. *Brittain, J.E., PROC Feb 95* 338
George W. Pierce, career/contribs. *Brittain, J.E., PROC Apr 97* 700-701
Greenleaf W. Pickard, careers/contribs. *Brittain, J.E., PROC Oct 95* 1434
Harold A. Wheeler, career/contribs. *Brittain, J.A., PROC Jan 97* 200-201
Harold S. Black, career/contribs. *Brittain, J.E., PROC Aug 97* 1335-1336
Harold T. Friis, career/contribs. *Brittain, J.E., PROC Dec 95* 1514
Harris J. Ryan, career/contribs. *Brittain, J.E., PROC Nov 96* 1709-1710
IRE proceedings, 1938-1962. *Brittain, J.E., PROC May 97* 762-797
Irving Langmuir, career/contribs. *Brittain, J.E., PROC Sep 95* 1298
James K. Clapp, career/contribs. *Brittain, J.E., PROC Apr 95* 698
John G. Brainerd, career/contribs. *Brittain, J.E., PROC Mar 96* 502
John R. Carson, career/contribs. *Brittain, J.E., PROC Jun 96* 909-910
John R. Stone, career/contribs. *Brittain, J.E., PROC Oct 96* 1573-1574
Lee de Forest, career/contribs. *Brittain, J.E., PROC Mar 97* 476-477
Ralph Bown, career/contribs. *Brittain, J.E., PROC Sep 97* 1511-1513
Raymond A. Heising, contribs. *Brittain, J.E., PROC Jun 95* 1003
Reginald A. Fessenden, radio pioneer, career/contribs. *Brittain, J.E., PROC Dec 96* 1852-1853
Rudolf Kompfner, career/contribs. *Brittain, J.E., PROC Feb 97* 340-341
Semi J. Begun, career/contribs. *Brittain, J.E., PROC Aug 96* 1189-1190
Sergei A. Schelkunoff, career/contribs. *Brittain, J.E., PROC Sep 96* 1344
Vladimir Karapetoff, career/contribs. *Brittain, J.E., PROC Oct 97* 1662-1663
William D. Coolidge, contribs. *Brittain, J.E., PROC May 95* 828
William Le Roy Emmet, career/contribs. *Brittain, J.E., PROC Jul 96* 1053-1054
William S. Lee, career/contribs. *Brittain, J.E., PROC Mar 95* 490
Engineering societies
IRE proceedings, 1938-1962. *Brittain, J.E., PROC May 97* 762-797
Entropy; cf. Maximum entropy methods
Entropy codes
JAGUAR, pipelined VLSI archit. for JPEG image compression. *Kovac, M., + , PROC Feb 95* 247-258
Environmental factors
hybrid neural network/spectrosc. chem. anal. *Taiwei Lu, + , PROC Jun 96* 895-905
low power electronics, batt. technol. *Powers, R.A., PROC Apr 95* 687-693
Epitaxial growth
gallium-nitride-based materials for blue to ultraviolet optoelectronics devices. *DenBaars, S.P., PROC Nov 97* 1740-1749
metalorganic chemical vapor deposition for optoelectronic devices. *Coleman, J.J., PROC Nov 97* 1715-1729
molecular beam epitaxy technol. of III-V compound semiconds. for optoelectronic appls. *Cheng, K.-Y., PROC Nov 97* 1694-1714
EPROM
flash memory cells, review. *Pavan, P., + , PROC Aug 97* 1248-1271
Equalizers
advanced TV systs. for terrestrial broadcasting, problems and solns. *Schreiber, W.F., PROC Jun 95* 958-981
Equivalent circuits
defibrillation/pacing electrodes, elec. behavior. *Kim, Y., + , PROC Mar 96* 446-456
Error analysis
antenna arrays appl. to mobile commun., beamforming and DOA aspects. *Godara, L.C., PROC Aug 97* 1195-1245
GPS wide area augmentation for aircraft navig. *Enge, P., + , PROC Aug 96* 1063-1088
laser satellite commun. network, vibr. effect and solns. *Arnon, S., + , PROC Oct 97* 1646-1661
portable video-on-demand syst. in wireless commun. *Meng, T.H., + , PROC Apr 95* 659-680
Estimation
PAC learning fn. approx., feedforward sigmoidal nets. *Rao, N.S.V., + , PROC Oct 96* 1562-1569
Estimation; cf. Direction of arrival estimation; Distributed estimation Filtering; Least squares methods; Maximum entropy methods Maximum likelihood estimation; Mean square error methods Recursive estimation; State estimation
Etching
GaN based devices and technol. *Mohammad, S.N., + , PROC Oct 95* 1306-1355
proximal probes, nanofabrication, STM and AFM. *Snow, E.S., + , PROC Apr 97* 601-611
Expert systems
fighter aircraft fault tolerant fuzzy control. *Kwong, W.A., + , PROC Mar 95* 466-483
Extrapolation
self-organizing map, props., engng. appls. *Kohonen, T., + , PROC Oct 96* 1358-1384
Extraterrestrial measurements
wavelets and study of distant Universe. *Bijaoui, A., + , PROC Apr 96* 670-679

F

Fabrication; cf. Integrated circuit fabrication; Semiconductor device fabrication
Face recognition
automated biometrics (special issue). *PROC Sep 97* 1343-1492
automated biometrics, special issue intro. *Shen, W., + , PROC Sep 97* 1343-1347
eigenface, elastic matching, neural nets, face recogn. *Jun Zhang, + , PROC Sep 97* 1423-1435
human and machine recogn. of faces, survey. *Chellappa, R., + , PROC May 95* 705-741
Fading channels
ACTS propag. data at 20 and 27.5 GHz, fade slope anal. *Feil, J., + , PROC Jun 97* 926-935
corrections to "Emerging applications of multirate signal processing and wavelets in digital communications" (Apr 96 586-603). *Wornell, G.W., PROC Aug 96* 1187-1188

cumulative fade distribs. and freq. scaling techs., 20 GHz from ACTS and 12 GHz from DSS. *Goldhirsh, J., + , PROC Jun 97* 910-916
digital commun., multirate sig. proc. and wavelets appls. *Wornell, G.W., PROC Apr 96* 586-603
Ka-band Earth-satellite propag. data, syst. requirements. *Rogers, D.V., + , PROC Jun 97* 810-820
Ka-band Earth-space propag. research in Japan. *Karasawa, Y., + , PROC Jun 97* 821-842
Ka-band propag., three-site comparison of fade-duration meas. *Helmken, H., + , PROC Jun 97* 917-925
Ka-band satellite links, open-loop uplink power control. *Dissanayake, A.W., PROC Jun 97* 959-969
Ka-band scintillations, meas. and model predictions. *Mayer, C.E., + , PROC Jun 97* 936-945
Ka-band VSATs, channel charactn. and modelling. *Alouini, M.-S., + , PROC Jun 97* 981-997
satellite CDMA transm. for mobile and pers. commun. *De Gaudenzi, R., + , PROC Jan 96* 18-39
three-site space-diversity expt., 20 GHz, ACTS. *Goldhirsh, J., + , PROC Jun 97* 970-980

Fading channels; cf. Multipath channels
Failure analysis; cf. Fault diagnosis; Fault trees
Fault diagnosis
fighter aircraft fault tolerant fuzzy control. *Kwong, W.A., + , PROC Mar 95* 466-483
Fault tolerance
fighter aircraft fault tolerant fuzzy control. *Kwong, W.A., + , PROC Mar 95* 466-483
nanoelectronics, quantum-effect devices, fault tolerance, design. *Goser, K.F., + , PROC Apr 97* 558-573
Fault trees
fuzzy logic, reliab. engng. appl. *Bowles, J.B., + , PROC Mar 95* 435-449
FDTD methods
cellular pers. commun., handset antenna/human EM interact. *Jensen, M.A., + , PROC Jan 95* 7-17
Feature extraction
GRAIL, multi-agent neural net gene ident. syst. *Ying Xu, + , PROC Oct 96* 1544-1552
human and machine recogn. of faces, survey. *Chellappa, R., + , PROC May 95* 705-741
Feedback; cf. State feedback
Feedback amplifiers
Harold S. Black, career/contribs. *Brittain, J.E., PROC Aug 97* 1335-1336
Feedback amplifiers; cf. Operational amplifiers
Feedback systems; cf. Control systems
Feedforward neural networks
control appls., practise. *Narendra, K.S., PROC Oct 96* 1385-1406
GRAIL, multi-agent neural net gene ident. syst. *Ying Xu, + , PROC Oct 96* 1544-1552
image compression, neural network approaches. *Dony, R.D., + , PROC Feb 95* 288-303
low bit rate video compression by neural net. *Cramer, C., + , PROC Oct 96* 1529-1543
nonlin. vector predictor, neural net approach. *Rizvi, S.A., + , PROC Oct 96* 1513-1528
PAC learning fn. approx., feedforward sigmoidal nets. *Rao, N.S.V., + , PROC Oct 96* 1562-1569
FET integrated circuits; cf. CMOS integrated circuits; MOS integrated circuits
FETs; cf. MESFETs; MISFETs; MODFETs; MOSFETs
Filtering
adaptive morph. subband decomp., image coding. *Egger, O., + , PROC Feb 95* 272-287
corrections to "Emerging applications of multirate signal processing and wavelets in digital communications" (Apr 96 586-603). *Wornell, G.W., PROC Aug 96* 1187-1188
digital commun., multirate sig. proc. and wavelets appls. *Wornell, G.W., PROC Apr 96* 586-603
musical sigs., time-freq. anal. *Pielemeier, W.J., + , PROC Sep 96* 1216-1230
noise reduction filters for dyn. image seqs., review. *Brailean, J.C., + , PROC Sep 95* 1272-1292
wavelets and time-freq. anal. *Hess-Nielsen, N., + , PROC Apr 96* 523-540
wavelets in biomedical appls. review. *Unser, M., + , PROC Apr 96* 626-638
wavelets, subband coding, and best bases. *Ramchandran, K., + , PROC Apr 96* 541-560
Filtering; cf. Estimation; Kalman filtering
Filters; cf. Acoustooptic filters; Adaptive filters; Digital filters; Equalizers; Linear phase filters; Matched filters
Financial data processing
tax forms, names and addresses, reading syst. *Srihari, S.N., + , PROC Jul 96* 1038-1049
Fingerprint identification
automated biometrics (special issue). *PROC Sep 97* 1343-1492
automated biometrics, special issue intro. *Shen, W., + , PROC Sep 97* 1343-1347
biometric authentication, fingerprint features, syst. perform. estim. *Roddy, A.R., + , PROC Sep 97* 1390-1421
identity-authentication syst., fingerprints. *Jain, A.K., + , PROC Sep 97* 1365-1388
neural net based fingerprint class./ident. *Halici, U., + , PROC Oct 96* 1497-1512
Finite automata; cf. Cellular automata
Finite difference methods
defibrillation/pacing electrodes, elec. behavior. *Kim, Y., + , PROC Mar 96* 446-456
Finite element methods
defibrillation/pacing electrodes, elec. behavior. *Kim, Y., + , PROC Mar 96* 446-456
Finite state machines
testing, principles and methods, survey. *Lee, D., + , PROC Aug 96* 1090-1123
Flat panel displays
cameras and display systs., rel., digital TV. *Hashimoto, Y., + , PROC Jul 95* 1032-1043
pers. communicators, batt.-powered, trends. *Warwick, C.W., PROC Apr 95* 681-686
Flip-flops
ENIAC electronic computing ccts., review. *Schneck, P.B., PROC Jul 97* 1169-1171
Flow graphs; cf. Signal flow graphs
Fluid flow
wavelets and turbulence. *Farge, M., + , PROC Apr 96* 639-669
Forecasting
book review; The World in 2020 (McRae, H.; 1994). *Dorf, R.C., PROC Jan 96* 88-89
present and future service demand, dyn. modeling. *Lyons, M.H., + , PROC Oct 97* 1544-1555
Forecasting; cf. Technology forecasting
Fourier series
musical sigs., time-freq. anal. *Pielemeier, W.J., + , PROC Sep 96* 1216-1230
Fourier transforms
air-filled elastic shells, acoustical scatt., structural excitations anal. *Dragonette, L.R., + , PROC Sep 96* 1249-1263
musical sigs., time-freq. anal. *Pielemeier, W.J., + , PROC Sep 96* 1216-1230
Frame synchronization
digital lightwave transm., scrambling techs. *Byeong Gi Lee, + , PROC Oct 95* 1399-1428
Frequency conversion; cf. Optical frequency conversion
Frequency division multiplexing
advanced TV systs. for terrestrial broadcasting, problems and solns. *Schreiber, W.F., PROC Jun 95* 958-981
coded orthogonal FDM, TV broadcasting appl. *Le Floch, B., + , PROC Jun 95* 982-996
Frequency domain analysis
acoustic sigs. charact., continuous lin. time-freq. representation. *Guillemain, P., + , PROC Apr 96* 561-585
automatic speech recogn., time-freq. anal. and auditory modeling. *Pitton, J.W., + , PROC Sep 96* 1199-1215
brain functional activity localization, EEG time-freq. anal. *Mingui Sun, + , PROC Sep 96* 1302-1311
cortical region neuronal oscills., EEG activity time-freq. anal. *Haykin, S., + , PROC Sep 96* 1295-1301
implantable cardioverter defibrillators, detect. algms. *Jenkins, J.M., + , PROC Mar 96* 428-445
internal combustion engine, knock detect., mech. signature anal., time-freq. methods. *Samimy, B., + , PROC Sep 96* 1330-1343
musical sigs., time-freq. anal. *Pielemeier, W.J., + , PROC Sep 96* 1216-1230
postural sway, human bal. control, time-freq. spectral anal. *El-Jaroudi, A., + , PROC Sep 96* 1312-1318
proc. machine monitoring sens., vibr. anal., time-freq. anal. *Atlas, L.E., + , PROC Sep 96* 1319-1329
reduced interf. distribs., biological appls./interps. *Williams, W.J., PROC Sep 96* 1264-1280

sig. anal., time-freq. distribs., sonar and radar echoes appl. *Gaunaurd, G.C., + , PROC Sep 96* 1231-1248
skeletal muscle/cardiac vibrs., time-freq. anal. *Wood, J.C., + , PROC Sep 96* 1281-1294
time-frequency analysis (special issue). *PROC Sep 96* 1195-1343
wavelets and time-freq. anal. *Hess-Nielsen, N., + , PROC Apr 96* 523-540
Frequency modulation
acoustic sigs. charact., continuous lin. time-freq. representation. *Guillemain, P., + , PROC Apr 96* 561-585
Frequency stability
corrections to "The fractional frequency stability of a 34-m-diameter beam waveguide antenna" (May 94 788-795). *Otoshi, T.Y., P PROC Aug 96* 1187
Functional analysis
correction to "Fuzzy logic systems for engineering: A tutorial" (Mar 95 345-377). *Mendel, J.M., PROC Sep 95* 1293
fuzzy logic systs. for engng., tutorial. *Mendel, J.M., PROC Mar 95* 345-377
Functions; cf. Boolean functions
Fuzzy control
engng. appls. of fuzzy logic (special issue). *PROC Mar 95* 343-483
fighter aircraft fault tolerant fuzzy control. *Kwong, W.A., + , PROC Mar 95* 466-483
hardware solns. for fuzzy control. *Costa, A., + , PROC Mar 95* 422-434
implement., control policies. *Thomas, D.E., + , PROC Mar 95* 407-421
indust. appls. of fuzzy control. *Bonissone, P.P., + , PROC Mar 95* 450-465
neuro-fuzzy modeling/control, adaptive network. *Jang, J.-S.R., + , PROC Mar 95* 378-406
Fuzzy logic
control policies, implement. *Thomas, D.E., + , PROC Mar 95* 407-421
correction to "Fuzzy logic systems for engineering: A tutorial" (Mar 95 345-377). *Mendel, J.M., PROC Sep 95* 1293
engng. appl. of fuzzy logic syst., tutorial. *Mendel, J.M., PROC Mar 95* 345-377
engng. appls. of fuzzy logic (special issue). *PROC Mar 95* 343-483
hardware solns. for fuzzy control. *Costa, A., + , PROC Mar 95* 422-434
indust. appls. of fuzzy control. *Bonissone, P.P., + , PROC Mar 95* 450-465
mobile robot navig., sens. fusion, self-location techs. *Kam, M., + , PROC Jan 97* 110-119
nuc. med. image restoration by neural net. *Wei Qian, + , PROC Oct 96* 1458-1473
reliab. engng. appl. of fuzzy logic. *Bowles, J.B., + , PROC Mar 95* 435-449
Fuzzy neural networks
neuro-fuzzy modeling/control, adaptive network. *Jang, J.-S.R., + , PROC Mar 95* 378-406
nuc. med. image restoration by neural net. *Wei Qian, + , PROC Oct 96* 1458-1473
Fuzzy sets
correction to "Fuzzy logic systems for engineering: A tutorial" (Mar 95 345-377). *Mendel, J.M., PROC Sep 95* 1293
fuzzy control policies, implement. *Thomas, D.E., + , PROC Mar 95* 407-421
logic syst., fuzzy for engng., tutorial. *Mendel, J.M., PROC Mar 95* 345-377
reliab. engng. appl. of fuzzy logic. *Bowles, J.B., + , PROC Mar 95* 435-449
Fuzzy systems
correction to "Fuzzy logic systems for engineering: A tutorial" (Mar 95 345-377). *Mendel, J.M., PROC Sep 95* 1293
logic syst., fuzzy for engng., tutorial. *Mendel, J.M., PROC Mar 95* 345-377

G

Galaxies
wavelets and study of distant Universe. *Bijaoui, A., + , PROC Apr 96* 670-679
Gallium compounds
gallium-nitride-based materials for blue to ultraviolet optoelectronics devices. *DenBaars, S.P., PROC Nov 97* 1740-1749
GaN based devices and technol. *Mohammad, S.N., + , PROC Oct 95* 1306-1355
high-brightness AlGaInP light emitting diodes. *Vanderwater, D.A., + , PROC Nov 97* 1752-1764
Game theory
heterog. servers network, service provision, user selection. *Olafsson, S., PROC Oct 97* 1556-1562
Gas-discharge displays; cf. Plasma displays
Gas lasers; cf. Carbon dioxide lasers
Generators
multimachine power syst. structural stabil., nonlin. load effects. *Pai, M.A., + , PROC Nov 95* 1562-1572
Generators; cf. AC generators
Genetics
GRAIL, multi-agent neural net gene ident. syst. *Ying Xu, + , PROC Oct 96* 1544-1552
lasers and optics in health care. *Deutsch, T.F., PROC Nov 97* 1797-1816
Geophysical measurements; cf. Hydrologic measurements
Global Positioning System
wide area augmentation for aircraft navig. *Enge, P., + , PROC Aug 96* 1063-1088
Governmental factors
book review; World Class (Kanter, R.M.; 1995). *Dorf, R.C., PROC Jul 96* 1050-1051
Government data processing
tax forms, names and addresses, reading syst. *Srihari, S.N., + , PROC Jul 96* 1038-1049
GPS; cf. Global Positioning System
Gradient methods
dyn. neural net for vehicle idle speed control. *Puskorius, G.V., + , PROC Oct 96* 1407-1420
Gradient methods; cf. Conjugate gradient methods; Least mean square methods
Graphical user interfaces
book review; The Icon Book: Visual Symbols for Computer Systems and Documentation (Horton, W.; 1994). *Winn, D., PROC Oct 95* 1429-1430
Graphics; cf. Computer graphics
Green function
book review; Dyadic Green Functions in Electromagnetic Theory (Tai, C.-T.; 1994). *Eleftheriades, G., PROC Jun 95* 998-999
Ground vehicles; cf. Land vehicles
Gyroscopes
fiber optic smart struct. sens. *Udd, E., PROC Jun 96* 884-894

H

Haar transforms
PAC learning fn. approx., feedforward sigmoidal nets. *Rao, N.S.V., + , PROC Oct 96* 1562-1569
Handwriting recognition
automatic on-line signature verification, prolog. *Esch, J., PROC Feb 97* 213-214
digital TV broadcasting, cryptology. *Macq, B.M., + , PROC Jun 95* 944-957
signature automatic on-line verification. *Nalwa, V.S., PROC Feb 97* 215-239
Hard disks
batt.-powered portable computers, technol. trends. *Harris, E.P., + , PROC Apr 95* 636-658
Hazardous areas
book review; Robotics and Remote Systems for Hazardous Environments (Jamshidi, M., and Eicker, P., Eds.; 1993). *Maciejewski, A.A., PROC Feb 95* 336-337
HDTV
3D TV research, present status. *Motoki, T., + , PROC Jul 95* 1009-1021
Grand Alliance syst. *Petajan, E., PROC Jul 95* 1094-1105
Grand Alliance syst. for US HDTV. *Challapali, K., + , PROC Feb 95* 158-174
stds., proc. and coding. *Ninomiya, Y., PROC Jul 95* 1086-1093
VLSI for digital HDTV. *Mlynek, D.J., + , PROC Jul 95* 1055-1070
Heterodyning
coherent laser radar in Europe, ground-based and airborne systs. *Vaughan, J.M., + , PROC Feb 96* 205-226
Heterojunction bipolar transistors
GaN based devices and technol. *Mohammad, S.N., + , PROC Oct 95* 1306-1355
Hidden Markov models
ANN for stat. recogn. of continuous speech. *Morgan, N., + , PROC May 95* 742-772
Hierarchical memories; cf. Memory hierarchies
High-definition TV; cf. HDTV
High-temperature techniques
future challenges and directions for nitride materials and light emitters. *Akasaki, I., + , PROC Nov 97* 1750-1751
History
birth of term "microwaves". *Pelosi, G., PROC Feb 96* 326
digital computer memory systs., historical survey. *Eckert, J.P., Jr, PROC Jan 97* 184-197
distributed interactive simul., networking technol. *Pullen, J.M., + , PROC Aug 95* 1156-1167
ENIAC electronic computing ccts., review. *Schneck, P.B., PROC Jul 97* 1169-1171

Federal Telegraph Company, commun. equipt. develop. *de Forest, L., PROC Feb 97* 327-336
first issue of Proceedings, intro. *Brittain, J.E., PROC Feb 97* 299-300
intro. to classic paper by M.I. Pupin on antenna radiation resistance meas. (classic paper reprint, pp. 306-310). *Collin, R.E., PROC Feb 97* 301-305
intro. to classic paper by S.M. Hills on high-voltage insulators for radio commun. (classic paper reprint, pp. 314-322). *Nelson, J.K., PROC Feb 97* 311-313
mol. electronics, hist., forty yrs. of develop. *Chapin Cutler, C., PROC Jul 97* 1141-1143
SIMNET, simulator networking, mil. training. *Miller, D.C., + , PROC Aug 95* 1114-1123
single-chip microcomputers, historical develop. *Mazor, S., PROC Dec 95* 1601-1608
transoceanic commun. of pass. satellites. *Pierce, J.R., + , PROC Jun 97* 1011-1019
wavelets, historical roots. *Daubechies, I., PROC Apr 96* 510-513
William Le Roy Emmet, career/contribs. *Brittain, J.E., PROC Jul 96* 1053-1054

Holographic memories
principles and techs. of opt. data storage. *Mansuripur, M., + , PROC Nov 97* 1780-1796

Holography
display of 3D video images . *Travis, A.R.L., PROC Nov 97* 1817-1832
nanostructure fab., electron beam techs. *Matsui, S., PROC Apr 97* 629-643
opt. scanning holography, tutorial. *Ting-Chung Poon, + , PROC May 96* 753-764

Hopfield networks
multi-target pass. tracking, neural net optim. *Shams, S., PROC Oct 96* 1442-1457
nuc. med. image restoration by neural net. *Wei Qian, + , PROC Oct 96* 1458-1473

Hot carriers
book review; Hot-Carrier Reliability of MOS VLSI Circuits (Leblebici, Y., and Kang, S.-M.; 1993). *Kwark, Y.H., PROC Mar 95* 486-487
UHV STM nanofabrication, nanolithography tool, selective oxid., metallization. *Lyding, J.W., PROC Apr 97* 589-600

Huffman codes
asynchronous design methodologies, overview. *Hauck, S., PROC Jan 95* 69-93
Grand Alliance syst. for US HDTV. *Challapali, K., + , PROC Feb 95* 158-174

Human factors
warfare modeling and simul., distributed interactive simul. *Davis, P.K., PROC Aug 95* 1138-1155

Hydrologic measurements
groundwater flow, hydraulic cond., sig.-level fusion, multiresolution method. *Daniel, M.M., + , PROC Jan 97* 164-180

Hypertext systems
review of distributed multimedia syst. *Li, V.O.K., + , PROC Jul 97* 1063-1108
semiotic paradigm for hypermedia data and coding models. *Gonzalez, R., PROC Jul 97* 1111-1140

I

Iconic languages; cf. Visual languages

Identification
blind syst. ident. techs., review. *Abed-Meraim, K., + , PROC Aug 97* 1310-1322
FSM testing, principles and methods, survey. *Lee, D., + , PROC Aug 96* 1090-1123
neural nets, control appls., practise. *Narendra, K.S., PROC Oct 96* 1385-1406

Identification; cf. Identification of persons; Object recognition

Identification of persons
automated biometrics (special issue). *PROC Sep 97* 1343-1492
automated biometrics, special issue intro. *Shen, W., + , PROC Sep 97* 1343-1347
eval. of automated biometrics-based ident. systs. *Weicheng Shen, + , PROC Sep 97* 1464-1478

Identification of persons; cf. Face recognition; Fingerprint identification; Handwriting recognition; Speaker recognition

IEEE publications
first issue of Proceedings, intro. *Brittain, J.E., PROC Feb 97* 299-300
IRE Proceedings 1913-1937, elec. and electronics engng. evoln. *Brittain, J.E., PROC Dec 96* 1747-1772

IEEE standards
distributed interactive simul. environ. *Hofer, R.C., + , PROC Aug 95* 1124-1137

Image analysis
human brain NMR image anal. by neural net. *Gelenbe, E., + , PROC Oct 96* 1488-1496
signals and systems (special section). *PROC Nov 96* 1579-1580, 1623-1704
wavelets in biomedical appls. review. *Unser, M., + , PROC Apr 96* 626-638

Image classification
mobile robot, environ. representation, multiple abstraction levels. *Dudek, G.L., PROC Nov 96* 1684-1704
opt. inform. proc. and beyond, review. *Ichioka, Y., + , PROC May 96* 694-719

Image coding
adaptive morph. subband decomp., image coding. *Egger, O., + , PROC Feb 95* 272-287
advances in image and video compression (special issue). *PROC Feb 95* 135-335
compression algms., mean field annealing recovery techs. *Ozcelik, T., + , PROC Feb 95* 304-316
compression, neural network approaches. *Dony, R.D., + , PROC Feb 95* 288-303
digital TV perspectives. *Netravali, A., + , PROC Jun 95* 834-842
digital video coding stds., video commun. role. *Schafer, R., + , PROC Jun 95* 907-924
digital video recording. *Umemoto, M., + , PROC Jul 95* 1044-1054
Grand Alliance syst. for US HDTV. *Challapali, K., + , PROC Feb 95* 158-174
HDTV digital systs., stds., proc. and coding. *Ninomiya, Y., PROC Jul 95* 1086-1093
HDTV Grand Alliance syst. *Petajan, E., PROC Jul 95* 1094-1105
JAGUAR, pipelined VLSI archit. for JPEG image compression. *Kovac, M., + , PROC Feb 95* 247-258
low bit rate video compression by neural net. *Cramer, C., + , PROC Oct 96* 1529-1543
med. image lossy compression by neural net. *Panagiotidis, N.G., + , PROC Oct 96* 1474-1487
model-based video coding, develop. *Pearson, D.E., PROC Jun 95* 892-906
motion estim. techs. for digital TV, review. *Dufaux, F., + , PROC Jun 95* 858-876
MPEG integrated audiovisual coding std., develop. *Chiariglione, L., PROC Feb 95* 151-157
nonlin. vector predictor, neural net approach. *Rizvi, S.A., + , PROC Oct 96* 1513-1528
opt. scanning holography, tutorial. *Ting-Chung Poon, + , PROC May 96* 753-764
radiologic image compression, review. *Wong, S., + , PROC Feb 95* 194-219
region-based video coding, math. morph. *Salembier, P., + , PROC Jun 95* 843-857
semiotic paradigm for hypermedia data and coding models. *Gonzalez, R., PROC Jul 97* 1111-1140
telephone loop plant, technol./appls. *Lin, D.W., + , PROC Feb 95* 175-193
vector-based sig. proc./quantization. *Weiping Li, + , PROC Feb 95* 317-335
very low bit rate video coding, trends. *Ebrahimi, T., + , PROC Jun 95* 877-891
video coding stds., ref. model methodology. *Okubo, S., PROC Feb 95* 139-150
VLSI archits. for video compression, survey. *Pirsch, P., + , PROC Feb 95* 220-246

Image communication
digital audio coding for visual commun. *Noll, P., PROC Jun 95* 925-943
digital video coding stds., video commun. role. *Schafer, R., + , PROC Jun 95* 907-924
model-based video coding techs. for low bit-rate appl. *Aizawa, K., + , PROC Feb 95* 259-271

Image communication; cf. Cable TV

Image databases
design data mgt., CAD frameworks. *van den Hamer, P., + , PROC Jan 96* 42-56
fingerprint class./ident. by SOFM neural net. *Halici, U., + , PROC Oct 96* 1497-1512

Image edge analysis
nonlin. vector predictor, neural net approach. *Rizvi, S.A., + , PROC Oct 96* 1513-1528
wavelets for computer vision research. *Mallat, S., PROC Apr 96* 604-614

Image enhancement
wavelets in biomedical appls. review. *Unser, M., + , PROC Apr 96* 626-638

Image matching
eigenface, elastic matching, neural nets, face recogn. *Jun Zhang, + , PROC Sep 97* 1423-1435

motion estim. techs. for digital TV, review. *Dufaux, F.*, + , *PROC Jun 95* 858-876
XTRS LADAR, model-based automatic target recogn. syst. *Verly, J.G.*, + , *PROC Feb 96* 126-163
Image matching; cf. Fingerprint identification
Image motion analysis
digital TV, motion estim. techs., review. *Dufaux, F.*, + , *PROC Jun 95* 858-876
Grand Alliance syst. for US HDTV. *Challapali, K.*, + , *PROC Feb 95* 158-174
low bit rate video compression by neural net. *Cramer, C.*, + , *PROC Oct 96* 1529-1543
region-based video coding, math. morph. *Salembier, P.*, + , *PROC Jun 95* 843-857
virtual reality, vision/motion research activities. *Ohzu, H.*, + , *PROC May 96* 782-798
VLSI analog archit., motion proc. *Sarpeshkar, R.*, + , *PROC Jul 96* 969-987
Image processing
1D proc. array. *Hammerstrom, D.W.*, + , *PROC Jul 96* 1005-1018
block data parallel archit. *Alexander, W.E.*, + , *PROC Jul 96* 947-968
data fusion (special issue). *PROC Jan 97* 3-183
high-perform. RISC systs., image proc. eval. *Baglietto, P.*, + , *PROC Jul 96* 917-930
modular massively parallel computing approach, image-related proc. *Kritkelis, A.*, + , *PROC Jul 96* 988-1004
optical information processing, part 1: image processing and vision (special issue). *PROC May 96* 691-798
parallel architectures for image processing (special issue). *PROC Jul 96* 915-1049
wavelets and study of distant Universe. *Bijaoui, A.*, + , *PROC Apr 96* 670-679
Image processing; cf. Image coding; Image matching; Image recognition; Image reconstruction; Image resolution; Image restoration; Video signal processing
Image recognition
multisensor imagery positioning for target recogn. and exploitation. *Chellappa, R.*, + , *PROC Jan 97* 120-138
Image recognition; cf. Face recognition; Fingerprint identification; Object recognition
Image reconstruction
adaptive morph. subband decomp., image coding. *Egger, O.*, + , *PROC Feb 95* 272-287
compression algms., mean field annealing recovery techs. *Ozcelik, T.*, + , *PROC Feb 95* 304-316
low bit rate video compression by neural net. *Cramer, C.*, + , *PROC Oct 96* 1529-1543
SAR images, spatial resoln., fusion, data sets. *Costantini, M.*, + , *PROC Jan 97* 139-146
scene interp., multiple sens. modalities, phys.-based integrat. *Nandhakumar, N.*, + , *PROC Jan 97* 147-163
wavelets in biomedical appls. review. *Unser, M.*, + , *PROC Apr 96* 626-638
Image reconstruction; cf. Holography
Image region analysis
region-based video coding, math. morph. *Salembier, P.*, + , *PROC Jun 95* 843-857
Image representations
digital video coding stds., video commun. role. *Schafer, R.*, + , *PROC Jun 95* 907-924
mobile robot, environ. representation, multiple abstraction levels. *Dudek, G.L., PROC Nov 96* 1684-1704
obj. fn. recogn., reasoning, partial shape model. *Stark, L.*, + , *PROC Nov 96* 1640-1656
Image resolution
groundwater flow, hydraulic cond., sig.-level fusion, multiresolution method. *Daniel, M.M.*, + , *PROC Jan 97* 164-180
nuc. med. image restoration by neural net. *Wei Qian*, + , *PROC Oct 96* 1458-1473
SAR images, spatial resoln., fusion, data sets. *Costantini, M.*, + , *PROC Jan 97* 139-146
wavelets in biomedical appls. review. *Unser, M.*, + , *PROC Apr 96* 626-638
Image restoration
blind syst. ident. techs., review. *Abed-Meraim, K.*, + , *PROC Aug 97* 1310-1322
nuc. med. image restoration by neural net. *Wei Qian*, + , *PROC Oct 96* 1458-1473
Image sampling
adaptive morph. subband decomp., image coding. *Egger, O.*, + , *PROC Feb 95* 272-287
speckle reduction in coherent inform. proc. *Iwai, T.*, + , *PROC May 96* 765-781
Image sequence analysis
low bit rate video compression by neural net. *Cramer, C.*, + , *PROC Oct 96* 1529-1543
model-based video coding, develop. *Pearson, D.E., PROC Jun 95* 892-906
motion estim. techs. for digital TV, review. *Dufaux, F.*, + , *PROC Jun 95* 858-876
noise reduction filters for dyn. image seqs., review. *Brailean, J.C.*, + , *PROC Sep 95* 1272-1292
region-based video coding, math. morph. *Salembier, P.*, + , *PROC Jun 95* 843-857
Image shape analysis
human and machine recogn. of faces, survey. *Chellappa, R.*, + , *PROC May 95* 705-741
obj. fn. recogn., reasoning, partial shape model. *Stark, L.*, + , *PROC Nov 96* 1640-1656
Image texture analysis
adaptive morph. subband decomp., image coding. *Egger, O.*, + , *PROC Feb 95* 272-287
region-based video coding, math. morph. *Salembier, P.*, + , *PROC Jun 95* 843-857
wavelets for computer vision research. *Mallat, S., PROC Apr 96* 604-614
Image transmission; cf. Image communication
Image understanding; cf. Image analysis
Imaging; cf. Biomedical X-ray imaging; Holography; Optical imaging; Synthetic aperture imaging; TV imaging
Impedance
intro. to classic paper by M.I. Pupin on antenna radiation resistance meas. (classic paper reprint, pp. 306-310). *Collin, R.E., PROC Feb 97* 301-305
Impedance measurement
Donald B. Sinclair, contribs. *Brittain, J.E., PROC Jul 95* 1107
Implantable biomedical devices
cardioverter defibrillators, elec. design challenges. *Warren, J.A.*, + , *PROC Mar 96* 468-479
detect. algms. in implantable cardioverter defibrillators. *Jenkins, J.M.*, + , *PROC Mar 96* 428-445
Implantable electrodes
cardiac pacing electrodes, pulse generator/lead perform. *Stokes, K., PROC Mar 96* 457-467
Indexes
fingerprint class./ident. by SOFM neural net. *Halici, U.*, + , *PROC Oct 96* 1497-1512
Indoor radio communication
mobile commun., antenna arrays, channel requirement, appls. *Godara, L.C., PROC Jul 97* 1031-1060
Induction motors
multimachine power syst. structural stabil., nonlin. load effects. *Pai, M.A.*, + , *PROC Nov 95* 1562-1572
Industrial control
book review; Manufacturing Systems Engineering (Gershwin, S.B.; 1994). *Meerkov, S.M., PROC Jul 96* 1051-1052
fuzzy logic control, indust. appls. *Bonissone, P.P.*, + , *PROC Mar 95* 450-465
Industrial production; cf. Manufacturing
Industries; cf. Communication industry
Inference mechanisms
fuzzy control, hardware soln. *Costa, A.*, + , *PROC Mar 95* 422-434
mobile robot navig., sens. fusion, self-location techs. *Kam, M.*, + , *PROC Jan 97* 110-119
neuro-fuzzy modeling/control, adaptive network. *Jang, J.-S.R.*, + , *PROC Mar 95* 378-406
Information rates
automatic speech recogn., time-freq. anal. and auditory modeling. *Pitton, J.W.*, + , *PROC Sep 96* 1199-1215
Information retrieval
book review; Universal Compression and Retrieval (Krichevsky, R.; 1994). *Csiszar, I., PROC Jun 95* 1000-1002
Information retrieval; cf. Hypertext systems
Information systems
quantum inform. proc., cryptography/computation/teleportation. *Spiller, T.P., PROC Dec 96* 1719-1746
Information theory
book review; The Collected Papers of Claude E. Shannon (Sloane, N.J.A., and Wyner, A.D., Eds.; 1993). *Ephremides, A., PROC Oct 96* 1570-1571
Information theory; cf. Encoding
Infrared lasers; cf. Carbon dioxide lasers
Injection lasers; cf. Semiconductor lasers
Innovation; cf. Technological innovation
Inspection
laser radar imaging sens. for robotic appls. *Carmer, D.C.*, + , *PROC Feb 96* 299-320

Insulation
intro. to classic paper by S.M. Hills on high-voltage insulators for radio commun. (classic paper reprint, pp. 314-322). *Nelson, J.K., PROC Feb 97* 311-313
Insulators
HT insulators, dielec. props. and radio appl. *Hills, S.M., PROC Feb 97* 314-322
Integrated circuit design
CMOS technol. challenges for integrat. near and below 0.1 μm design rule. *Asai, S., + , PROC Apr 97* 505-520
hardware/software codesign (special issue). *PROC Mar 97* 347-466
hardware/software codesign, special issue intro. *De Michell, G., PROC Mar 97* 347-348
low-power IC design, power conscious CAD tools and methodologies. *Singh, D., + , PROC Apr 95* 570-594
nanoelectronics, quantum-effect devices, fault tolerance, design. *Goser, K.F., + , PROC Apr 97* 558-573
Integrated circuit doping
CMOS technol. challenges for integrat. near and below 0.1 μm design rule. *Asai, S., + , PROC Apr 97* 505-520
Integrated circuit fabrication
CMOS scaling for high perform. and low power, next decade. *Davari, B., + , PROC Apr 95* 595-606
low power microelectronics, develop. and prospects. *Meindl, J.D., PROC Apr 95* 619-635
nanometer-scale science and technology (special issue). *PROC Apr 97* 483-680
nanometer-scale science and technology, special issue intro. *Marrian, C.R.K., PROC Apr 97* 483-485
Si scaled submicron ultra-low power CMOS technol. *Stork, J.M.C., PROC Apr 95* 607-618
μP, technol. and business. *Tredennick, N., PROC Dec 95* 1641-1652
Integrated circuit fabrication; cf. Integrated circuit doping; Integrated circuit metallization; Integrated circuit packaging; Lithography
Integrated circuit interconnections
CMOS scaling into nanometer regime, fund. phys. effects, practicality. *Yuan Taur, + , PROC Apr 97* 486-504
CMOS technol. challenges for integrat. near and below 0.1 μm design rule. *Asai, S., + , PROC Apr 97* 505-520
high-end proc., CMOS and bipolar, perform. trends. *Sai-Halasz, G.A., PROC Jan 95* 20-36
Integrated circuit metallization
UHV STM nanofabrication, nanolithography tool, selective oxid., metallization. *Lyding, J.W., PROC Apr 97* 589-600
Integrated circuit modeling
high-end proc., CMOS and bipolar, perform. trends. *Sai-Halasz, G.A., PROC Jan 95* 20-36
Si scaled submicron ultra-low power CMOS technol. *Stork, J.M.C., PROC Apr 95* 607-618
Integrated circuit noise
CMOS op-amp imperfections reduction, autozeroing, correl. double sampling, chopper stabil. *Enz, C.C., + , PROC Nov 96* 1584-1614
Integrated circuit packaging
low-power IC design, power conscious CAD tools and methodologies. *Singh, D., + , PROC Apr 95* 570-594
Integrated circuit reliability
book review; Hot-Carrier Reliability of MOS VLSI Circuits (Leblebici, Y., and Kang, S.-M.; 1993). *Kwark, Y.H., PROC Mar 95* 486-487
CMOS scaling for high perform. and low power, next decade. *Davari, B., + , PROC Apr 95* 595-606
flash memory cells, review. *Pavan, P., + , PROC Aug 97* 1248-1271
Integrated circuits; cf. Analog integrated circuits; Application specific integrated circuits; Integrated optics; Integrated optoelectronics; Large-scale integration; MOS integrated circuits; Semiconductor memories
Integrated circuits industry; cf. Electronics industry
Integrated optics
Bragg cell Integrated acoustooptic/magnetooptic modulator devices for opt. inform. proc. *Tsai, C.S., PROC Jun 96* 853-869
micromachining for opt. and optoelctronic systs. *Wu, M.C., PROC Nov 97* 1833-1856
Integrated optoelectronics
micromachining for opt. and optoelctronic systs. *Wu, M.C., PROC Nov 97* 1833-1856
modified sign digit no. representation, opt. computing/interconnects. *Yatagai, T., + , PROC Jun 96* 828-852
optoelectronics technology (special issue). *PROC Nov 97* 1671-1874
optoelectronics technology, special issue intro. *Lo, Y.-H., PROC Nov 97* 1671-1672
Integrated services digital networks; cf. Asynchronous transfer mode; ISDN
Integrated voice-data communication
delay perform. anal. of new Internet services with guaranteed QoS. *van der Wal, K., + , PROC Dec 97* 1947-1957
Integrated voice/data communication; cf. Burst switching; Integrated services digital networks; ISDN
Intelligent control
autonomous robots, adaptive neural control. *Schmajuk, N.A., PROC Oct 96* 1553-1561
fighter aircraft fault tolerant fuzzy control. *Kwong, W.A., + , PROC Mar 95* 466-483
Intelligent control; cf. Neurocontrollers
Intelligent networks
convergence of telecomms. and computing to networking models for integrated services and appls. *Decina, M., + , PROC Dec 97* 1887-1914
Intelligent sensors
civ. engng. smart structs., distrib. fiber optic technols. *Culshaw, B., + , PROC Jan 96* 78-86
fiber optic smart struct. *Udd, E., PROC Jan 96* 60-67
fiber optic smart struct. sens. *Udd, E., PROC Jun 96* 884-894
smart struct., sens. and proc. *Spillman, W.B., Jr., PROC Jan 96* 68-77
Intelligent structures
civ. engng. smart structs., distrib. fiber optic technols. *Culshaw, B., + , PROC Jan 96* 78-86
fiber optic smart struct. *Udd, E., PROC Jan 96* 60-67
fiber optic smart struct. sens. *Udd, E., PROC Jun 96* 884-894
smart struct., sens. and proc. *Spillman, W.B., Jr., PROC Jan 96* 68-77
smart structures (special section). *PROC Jan 96* 57-86
Intelligent systems; cf. Intelligent control; Intelligent networks
Interactive computing
distributed interactive simulation (special issue). *PROC Aug 95* 1111-1195
Interactive systems
CoWare hardware-software codesign tool for digital telecom systs. *Bolsens, I., + , PROC Mar 97* 391-418
Defense Department, distributed interactive simul. technol. appl. *Shiflett, J.E., + , PROC Aug 95* 1168-1178
distributed interactive simul. environ. *Hofer, R.C., + , PROC Aug 95* 1124-1137
distributed interactive simul., future technol. challenges. *Reddy, R., + , PROC Aug 95* 1188-1195
distributed interactive simul., networking technol. *Pullen, J.M., + , PROC Aug 95* 1156-1167
distributed interactive simul., nondefense training/education appls. *Fitzsimmons, E.A., + , PROC Aug 95* 1179-1187
warfare modeling and simul., distributed interactive simul. *Davis, P.K., PROC Aug 95* 1138-1155
Interactive systems; cf. Interactive TV
Interactive TV
distributed multimedia systs., tech. survey. *Li, V.O.K., + , PROC Jul 97* 1063-1108
interactive TV, digital actors. *Magnenat Thalmann, N., + , PROC Jul 95* 1022-1031
portable video-on-demand syst. in wireless commun. *Meng, T.H., + , PROC Apr 95* 659-680
residential consumer video service. *Blahut, D.E., + , PROC Jul 95* 1071-1085
Interconnected systems; cf. Large-scale systems
Interconnections; cf. Integrated circuit interconnections
Interconnections, integrated circuits; cf. Integrated circuit interconnections
Interference; cf. Electromagnetic atmospheric interference; Intersymbol interference
Interference suppression
dyn. image seqs., noise reduction filters, review. *Brailean, J.C., + , PROC Sep 95* 1272-1292
satellite CDMA transm. for mobile and pers. commun. *De Gaudenzi, R., + , PROC Jan 96* 18-39
sig. anal., time-freq. distribs., sonar and radar echoes appl. *Gaunaurd, G.C., + , PROC Sep 96* 1231-1248
Internal combustion engines
dyn. neural net for vehicle idle speed control. *Puskorius, G.V., + , PROC Oct 96* 1407-1420
knock detect., mech. signature anal., time-freq. methods. *Samimy, B., + , PROC Sep 96* 1330-1343
Internat. Consultative Ctte. for Telephone & Telegraph; cf. CCITT
International Organization for Standardization; cf. ISO
Internet
data anal., status and community challenges. *Claffy, K., + , PROC Oct 97* 1563-1571
delay perform. anal. of new Internet services with guaranteed QoS. *van der Wal, K., + , PROC Dec 97* 1947-1957
global information infrastructure (special issue). *PROC Dec 97* 1883-2051

global information infrastructure, special issue intro. *Goode, B., PROC Dec 97* 1883-1886
integrated services in Internet, state of art. *White, P.P., + , PROC Dec 97* 1934-1946
internetworking based on cell switch router - archit. and protocol review. *Katsube, Y., + , PROC Dec 97* 1998-2006
IP switching for scalable IP services. *Ahmed, H.M., + , PROC Dec 97* 1984-1997
security issues in networks with Internet access. *Landwehr, C.E., + , PROC Dec 97* 2034-2051
tag switching archit. overview. *Rekhter, Y., + , PROC Dec 97* 1973-1983
telecomms. and data networks signaling. *Kant, K., + , PROC Oct 97* 1612-1621

Internetworking
convergence of telecomms. and computing to networking models for integrated services and appls. *Decina, M., + , PROC Dec 97* 1887-1914
distributed interactive simul., networking technol. *Pullen, J.M., + , PROC Aug 95* 1156-1167
global information infrastructure (special issue). *PROC Dec 97* 1883-2051
global information infrastructure, special issue intro. *Goode, B., PROC Dec 97* 1883-1886
internetworking based on cell switch router - archit. and protocol review. *Katsube, Y., + , PROC Dec 97* 1998-2006
IP switching for scalable IP services. *Ahmed, H.M., + , PROC Dec 97* 1984-1997

Interpolation
self-organizing map, props., engng. appls. *Kohonen, T., + , PROC Oct 96* 1358-1384

Intersymbol interference
corrections to "Emerging applications of multirate signal processing and wavelets in digital communications" (Apr 96 586-603). *Wornell, G.W., PROC Aug 96* 1187-1188
digital commun., multirate sig. proc. and wavelets appls. *Wornell, G.W., PROC Apr 96* 586-603

Inverse problems; cf. Image reconstruction

ISDN
global information infrastructure (special issue). *PROC Dec 97* 1883-2051
global information infrastructure, special issue intro. *Goode, B., PROC Dec 97* 1883-1886
telephone loop plant, technol./appls. *Lin, D.W., + , PROC Feb 95* 175-193

ISDN; cf. B-ISDN; SONET

ISI; cf. Intersymbol interference

ISO
telephone loop plant, technol./appls. *Lin, D.W., + , PROC Feb 95* 175-193
video coding stds., ref. model methodology. *Okubo, S., PROC Feb 95* 139-150
VLSI archits. for video compression, survey. *Pirsch, P., + , PROC Feb 95* 220-246

Iterative methods
image compression, neural network approaches. *Dony, R.D., + , PROC Feb 95* 288-303
image/video compression algms., mean field annealing recovery techs. *Ozcelik, T., + , PROC Feb 95* 304-316

Iterative methods; cf. Conjugate gradient methods

ITU
telecomms. and data networks signaling. *Kant, K., + , PROC Oct 97* 1612-1621
wireless commun. in twenty-first century. *Shafi, M., + , PROC Oct 97* 1622-1638

J

Jitter
packet-switching networks, service disciplines for guaranteed perform. *Hui Zhang, PROC Oct 95* 1374-1396

Journals
IRE proceedings, 1938-1962. *Brittain, J.E., PROC May 97* 762-797

Junction lasers; cf. Semiconductor lasers

K

Kalman filtering
book review; Kalman Filtering: Theory and Practice (Grewal, M.S., and Andrews, A.P.; 1993). *Bass, R.W., PROC Feb 96* 321-324
book review; Stochastic Systems for Engineers: Modelling, Estimation and Control (Borrie, J.A.; 1992). *Toumodge, S., PROC Apr 95* 695
mobile robot navig., sens. fusion, self-location techs. *Kam, M., + , PROC Jan 97* 110-119

Karhunen-Loeve transforms
image compression, neural network approaches. *Dony, R.D., + , PROC Feb 95* 288-303

Knowledge acquisition
2D image recogn., hybrid syst. *Roli, F., + , PROC Nov 96* 1659-1681

Knowledge based systems
ATM public networks, perform. mgt., scaleable and flexible approach. *Azmoodeh, M., + , PROC Oct 97* 1639-1645
fuzzy logic control, indust. appls. *Bonissone, P.P., + , PROC Mar 95* 450-465
heterog. servers network, service provision, user selection. *Olafsson, S., PROC Oct 97* 1556-1562
multisensor data fusion, state of art/appls. *Hall, D.L., + , PROC Jan 97* 6-23

Knowledge-based systems; cf. Expert systems

L

LAN; cf. Local area networks

Land mobile radio
antenna arrays appl. to mobile commun., beamforming and DOA aspects. *Godara, L.C., PROC Aug 97* 1195-1245
antenna arrays, channel requirement, appls. *Godara, L.C., PROC Jul 97* 1031-1060
book review; Narrowband Land-Mobile Radio Networks (Linnartz, J.-P.; 1992). *LaMaire, R.O., PROC Apr 95* 695-696

Land mobile radio cellular systems
book review; The GSM System for Mobile Communications (Mouly, M., and Pautet, M.-B.). *Chia, S., PROC Jun 95* 999-1000
corrections to "Emerging applications of multirate signal processing and wavelets in digital communications" (Apr 96 586-603). *Wornell, G.W., PROC Aug 96* 1187-1188
digital commun., multirate sig. proc. and wavelets appls. *Wornell, G.W., PROC Apr 96* 586-603
handset antenna/human EM interact., pers. commun. *Jensen, M.A., + , PROC Jan 95* 7-17
low-power RF ICs for portable commun., all-CMOS radio. *Abidi, A.A., PROC Apr 95* 544-569

Land mobile radio data communication
wireless commun. in twenty-first century. *Shafi, M., + , PROC Oct 97* 1622-1638

Land mobile radio diversity systems
corrections to "Emerging applications of multirate signal processing and wavelets in digital communications" (Apr 96 586-603). *Wornell, G.W., PROC Aug 96* 1187-1188
digital commun., multirate sig. proc. and wavelets appls. *Wornell, G.W., PROC Apr 96* 586-603
satellite CDMA transm. for mobile and pers. commun. *De Gaudenzi, R., + , PROC Jan 96* 18-39

Land mobile radio interference
corrections to "Emerging applications of multirate signal processing and wavelets in digital communications" (Apr 96 586-603). *Wornell, G.W., PROC Aug 96* 1187-1188
digital commun., multirate sig. proc. and wavelets appls. *Wornell, G.W., PROC Apr 96* 586-603
satellite CDMA transm. for mobile and pers. commun. *De Gaudenzi, R., + , PROC Jan 96* 18-39

Land mobile radio propagation factors
satellite CDMA transm. for mobile and pers. commun. *De Gaudenzi, R., + , PROC Jan 96* 18-39
wireless commun. in twenty-first century. *Shafi, M., + , PROC Oct 97* 1622-1638

Land mobile radio propagation factors; cf. Land mobile radio diversity systems

Land mobile radio spectrum management
wireless commun. in twenty-first century. *Shafi, M., + , PROC Oct 97* 1622-1638

Land transportation
Frank J. Sprague, career/contribs. *Brittain, J.E., PROC Jul 97* 1183-1184

Land vehicles
autonomous vehicles. *Meyrowitz, A.L., + , PROC Aug 96* 1147-1164

Land vehicles; cf. Military land vehicles

Large-scale integration
low-power RAM cct. technol. trends. *Itoh, K., + , PROC Apr 95* 524-543
single-chip microcomputers, historical develop. *Mazor, S., PROC Dec 95* 1601-1608

Large-scale integration; cf. Ultra-large-scale integration; Very-large-scale integration

Large-scale systems
nonlin. large power syst. stabil. anal., taxonomy theory-based. *Venkatasubramanian, V., + , PROC Nov 95* 1530-1561

Large-screen displays
cameras and display systs., rel., digital TV. *Hashimoto, Y., + , PROC Jul 95* 1032-1043
Laser applications
LITE, NASA space lidar for cloud and aerosol. *Winker, D.M., + , PROC Feb 96* 164-180
satellite commun. network, vibr. effect and solns. *Arnon, S., + , PROC Oct 97* 1646-1661
WDM opt. fiber networks, opt. components, review. *Borella, M.S., + , PROC Aug 97* 1274-1307
wind vel. rem. sens., solid-state/CO_2 lidar systs. *Huffaker, R.M., + , PROC Feb 96* 181-204
Laser applications; cf. Laser biomedical applications; Magnetooptic recording; Optical memories
Laser biomedical applications
lasers and optics in health care. *Deutsch, T.F., PROC Nov 97* 1797-1816
Laser chemistry applications
hybrid neural network/spectrosc. chem. anal. *Taiwei Lu, + , PROC Jun 96* 895-905
Laser diodes; cf. Semiconductor lasers
Laser excitation; cf. Optical pumping
Laser radar
1D opt. phased array technol., sens. appls. *McManamon, P.F., + , PROC Feb 96* 268-298
coherent laser radar in Europe, ground-based and airborne systs. *Vaughan, J.M., + , PROC Feb 96* 205-226
CO_2 range-Doppler imaging laser radar component technol. *Melngailis, I., + , PROC Feb 96* 227-267
imaging laser radar transmitters in near/far IR. *Osche, G.R., + , PROC Feb 96* 103-125
laser radar imaging sens. for robotic appls. *Carmer, D.C., + , PROC Feb 96* 299-320
laser radar (special issue). *PROC Feb 96* 99-320
LITE, NASA space lidar for cloud and aerosol. *Winker, D.M., + , PROC Feb 96* 164-180
wind vel. rem. sens., solid-state/CO_2 lidar systs. *Huffaker, R.M., + , PROC Feb 96* 181-204
XTRS LADAR, model-based automatic target recogn. syst. *Verly, J.G., + , PROC Feb 96* 126-163
Laser resonators
coherent laser radar in Europe, ground-based and airborne systs. *Vaughan, J.M., + , PROC Feb 96* 205-226
Lasers; cf. Carbon dioxide lasers; Semiconductor lasers
Laser stability
CO_2 range-Doppler imaging laser radar component technol. *Melngailis, I., + , PROC Feb 96* 227-267
Learning control systems
fighter aircraft fault tolerant fuzzy control. *Kwong, W.A., + , PROC Mar 95* 466-483
Learning control systems; cf. Neurocontrollers
Learning systems
autonomous robots, adaptive neural control. *Schmajuk, N.A., PROC Oct 96* 1553-1561
fuzzy logic control, indust. appls. *Bonissone, P.P., + , PROC Mar 95* 450-465
hybrid neural network/spectrosc. chem. anal. *Taiwei Lu, + , PROC Jun 96* 895-905
image compression, neural network approaches. *Dony, R.D., + , PROC Feb 95* 288-303
PAC learning fn. approx., feedforward sigmoidal nets. *Rao, N.S.V., + , PROC Oct 96* 1562-1569
self-organizing map, props., engng. appls. *Kohonen, T., + , PROC Oct 96* 1358-1384
Learning systems; cf. Neural networks
Least mean square methods
SAR images, spatial resoln., fusion, data sets. *Costantini, M., + , PROC Jan 97* 139-146
Least squares methods
antenna arrays appl. to mobile commun., beamforming and DOA aspects. *Godara, L.C., PROC Aug 97* 1195-1245
brain functional activity localization, EEG time-freq. anal. *Mingui Sun, + , PROC Sep 96* 1302-1311
LEDs; cf. Light-emitting diodes
Legal factors
distributed interactive simul., nondefense training/education appls. *Fitzsimmons, E.A., + , PROC Aug 95* 1179-1187
privacy aspects of biometrics. *Woodward, J.D., PROC Sep 97* 1480-1492
radiologic image compression, review. *Wong, S., + , PROC Feb 95* 194-219
Legal factors; cf. Copyright protection
Lidar; cf. Laser radar
Light-emitting diodes
future challenges and directions for nitride materials and light emitters. *Akasaki, I., + , PROC Nov 97* 1750-1751
gallium-nitride-based materials for blue to ultraviolet optoelectronics devices. *DenBaars, S.P., PROC Nov 97* 1740-1749
GaN based devices and technol. *Mohammad, S.N., + , PROC Oct 95* 1306-1355
high-brightness AlGaInP light emitting diodes. *Vanderwater, D.A., + , PROC Nov 97* 1752-1764
optoelectronics technology (special issue). *PROC Nov 97* 1671-1874
optoelectronics technology, special issue intro. *Lo, Y.-H., PROC Nov 97* 1671-1672
Lighting
illum. of Panama-Pacific Internat. Exposition of 1915. *Brittain, J.E., PROC May 96* 802
Light sources; cf. Light-emitting diodes
Light triggered switches
STM/AFM nano-oxid. proc., single-electron transistors, photoconductive switches, HEMT. *Matsumoto, K., PROC Apr 97* 612-628
Linear algebra; cf. Matrices
Linear integrated circuits; cf. Analog integrated circuits
Linear phase filters
wavelets and time-freq. anal. *Hess-Nielsen, N., + , PROC Apr 96* 523-540
Linear systems
book review; Linear Matrix Inequalities in System and Control Theory (Boyd, S., et al.; 1994). *Yaz, E.E., PROC Apr 97* 698-699
Liquid crystal devices
1D opt. phased array technol., sens. appls. *McManamon, P.F., + , PROC Feb 96* 268-298
Liquid crystal displays
batt.-powered portable computers, technol. trends. *Harris, E.P., + , PROC Apr 95* 636-658
cameras and display systs., rel., digital TV. *Hashimoto, Y., + , PROC Jul 95* 1032-1043
pers. communicators, batt.-powered, trends. *Warwick, C.W., PROC Apr 95* 681-686
Lithography
1D opt. phased array technol., sens. appls. *McManamon, P.F., + , PROC Feb 96* 268-298
CMOS scaling into nanometer regime, fund. phys. effects, practicality. *Yuan Taur, + , PROC Apr 97* 486-504
nanometer-scale science and technology (special issue). *PROC Apr 97* 483-680
nanometer-scale science and technology, special issue intro. *Marrian, C.R.K., PROC Apr 97* 483-485
patterned mag. nanostructures and quantized mag. disks. *Chou, S.Y., PROC Apr 97* 652-671
Lithography; cf. Electron beam lithography; X-ray lithography
Load flow analysis
multimachine power syst. structural stabil., nonlin. load effects. *Pai, M.A., + , PROC Nov 95* 1562-1572
power syst. behavior anal. tools, nonlin. considerations. *Hiskens, I.A., PROC Nov 95* 1573-1587
Load modeling
multimachine power syst. structural stabil., nonlin. load effects. *Pai, M.A., + , PROC Nov 95* 1562-1572
power syst. behavior anal. tools, nonlin. considerations. *Hiskens, I.A., PROC Nov 95* 1573-1587
power syst. voltage collapse modelling, bifurcation theory-based. *Chin-Woo Tan, + , PROC Nov 95* 1484-1496
Load shedding
power syst. voltage instabil., mechanisms and control strategies. *Vu, K.T., + , PROC Nov 95* 1442-1455
Local area networks
book review; LAN Communications Handbook (Simonds, F.; 1994). *Hayes, D.F., PROC Sep 95* 1296-1297
distributed interactive simul. environ. *Hofer, R.C., + , PROC Aug 95* 1124-1137
distributed interactive simul., nondefense training/education appls. *Fitzsimmons, E.A., + , PROC Aug 95* 1179-1187
IR wireless high-speed short-range digital commun. *Kahn, J.M., + , PROC Feb 97* 265-298
SIMNET, simulator networking, mil. training. *Miller, D.C., + , PROC Aug 95* 1114-1123
testbed for twenty-first century. *Henning, I., + , PROC Oct 97* 1572-1581
Local area networks; cf. Wireless LAN
Logic; cf. Fuzzy logic; Inference mechanisms
Logic arrays
Boolean logic, nanoelectronic archit., double-barrier reson. tunneling diode. *Roychowdhury, V.P., + , PROC Apr 97* 574-588

Logic arrays; cf. Cellular logic arrays; Programmable logic arrays
Logic circuits
ENIAC electronic computing ccts., review. *Schneck, P.B., PROC Jul 97* 1169-1171
nanometer-scale science and technology (special issue). *PROC Apr 97* 483-680
nanometer-scale science and technology, special issue intro. *Marrian, C.R.K., PROC Apr 97* 483-485
Logic circuits; cf. Asynchronous logic circuits; Combinational logic circuits; Logic arrays; Sequential logic circuits
Logic circuit testing; cf. Sequential logic circuit testing
Logic design
asynchronous design methodologies, overview. *Hauck, S., PROC Jan 95* 69-93
digital CMOS ccts., power consumption minimization. *Chandrakasan, A.P., + , PROC Apr 95* 498-523
hardware/software co-design. *De Michell, G., + , PROC Mar 97* 349-365
hardware/software codesign (special issue). *PROC Mar 97* 347-466
hardware/software codesign, special issue intro. *De Micheli, G., PROC Mar 97* 347-348
reactive real-time embedded syst. design, formal models. *Edwards, S., + , PROC Mar 97* 366-390
Stanford FLASH multiprocessor, hardware/software co-design. *Heinrich, M., + , PROC Mar 97* 455-466
Logic programming
book review; Parallel Logic Programming (Takeuchi, A.; 1992). *Mikolajczak, B., PROC Mar 95* 488
LSI; cf. Large-scale integration
Lyapunov methods
book review; Qualitative Theory of Dynamical Systems: The Role of Stability Preserving Mappings (Michèl, A.N., and Wang, K.; 1995). *Sandberg, I.W., PROC Jan 97* 198-199
nonlin. large power syst. stabil. anal., taxonomy theory-based. *Venkatasubramanian, V., + , PROC Nov 95* 1530-1561
radar detect. of sigs. in chaos, small target in sea clutter. *Haykin, S., + , PROC Jan 95* 95-122

M

Machine vision
high-perform. computing. *Cho-Li Wang, + , PROC Jul 96* 931-946
human and machine recogn. of faces, survey. *Chellappa, R., + , PROC May 95* 705-741
iris recogn. *Wildes, R.P., PROC Sep 97* 1348-1363
knowledge-directed vision, control, learning and integrat. *Draper, B.A., + , PROC Nov 96* 1625-1637
optical information processing, part 1: image processing and vision (special issue). *PROC May 96* 691-798
scene interp., multiple sens. modalities, phys.-based integrat. *Nandhakumar, N., + , PROC Jan 97* 147-163
signals and systems (special section). *PROC Nov 96* 1579-1580, 1623-1704
wavelets for computer vision research. *Mallat, S., PROC Apr 96* 604-614
Machine vision; cf. Object recognition
Machining; cf. Micromachining
Magnetic devices; cf. Magnetic switches; Magnetic transducers; Magnetoresistive devices
Magnetic disk recording
patterned mag. nanostructures and quantized mag. disks. *Chou, S.Y., PROC Apr 97* 652-671
Magnetic domains
patterned mag. nanostructures and quantized mag. disks. *Chou, S.Y., PROC Apr 97* 652-671
Magnetic force microscopy
patterned mag. nanostructures and quantized mag. disks. *Chou, S.Y., PROC Apr 97* 652-671
Magnetic forces
biosensor, micromachined device. *Baselt, D.R., + , PROC Apr 97* 672-680
Magnetic materials; cf. Powdered magnetic materials
Magnetic recording
Semi J. Begun, career/contribs. *Brittain, J.E., PROC Aug 96* 1189-1190
Magnetic recording; cf. Magnetic disk recording; Magnetooptic recording
Magnetic switches
patterned mag. nanostructures and quantized mag. disks. *Chou, S.Y., PROC Apr 97* 652-671
Magnetic transducers
biosensor, micromachined device. *Baselt, D.R., + , PROC Apr 97* 672-680
patterned mag. nanostructures and quantized mag. disks. *Chou, S.Y., PROC Apr 97* 652-671
Magnetooptic devices
Bragg cell Integrated acoustooptic/magnetooptic modulator devices for opt. inform. proc. *Tsai, C.S., PROC Jun 96* 853-869
Magnetooptic modulation
Bragg cell Integrated acoustooptic/magnetooptic modulator devices for opt. inform. proc. *Tsai, C.S., PROC Jun 96* 853-869
Magnetooptic recording
principles and techs. of opt. data storage. *Mansuripur, M., + , PROC Nov 97* 1780-1796
Magnetoresistive devices
patterned mag. nanostructures and quantized mag. disks. *Chou, S.Y., PROC Apr 97* 652-671
Magnetrons
beam transmission of ultra short waves (reprinted from Proc. IRE, vol. 16, pp. 715-741, June 1928). *Yagi, H., PROC Nov 97* 1864-1874
Management
book review; Meeting of the Minds: Creating the Market-Based Enterprise Barabba, V.; 1995). *Geisler, E., PROC Aug 97* 1334
book review; The Balanced Scorecard: Translating Strategy into Action (Kaplan, R.S., and Norton, D.P.; 1996). *Dorf, R.C., + , PROC Sep 97* 1509-1510
Management; cf. Communication system operations and management; Production management; Project management; RD&E management; Research and development management
Manipulators
book review; Parallel Computation Systems for Robotics Algorithms and Architectures (Fijany, A., and Bejczy, A., Eds.; 1992). *Sharf, I., PROC Aug 95* 1196-1197
Man–machine systems; cf. Human factors
Manufacturing
book review; Manufacturing Systems Engineering (Gershwin, S.B.; 1994). *Meerkov, S.M., PROC Jul 96* 1051-1052
book review; Project Management in Manufacturing and High Technology Management, 2nd edn. (Badiru, A.B.; 1996). *Pinto, J.K., PROC Nov 97* 1875
Marine vehicle propulsion
William Le Roy Emmet, career/contribs. *Brittain, J.E., PROC Jul 96* 1053-1054
Marine vehicles; cf. Underwater vehicles
Marketing
book review; Meeting of the Minds: Creating the Market-Based Enterprise Barabba, V.; 1995). *Geisler, E., PROC Aug 97* 1334
Markov processes
groundwater flow, hydraulic cond., sig.-level fusion, multiresolution method. *Daniel, M.M., + , PROC Jan 97* 164-180
image/video compression algms., mean field annealing recovery techs. *Ozcelik, T., + , PROC Feb 95* 304-316
Masers
mol. amplif. and generation of microwaves. *Wittke, J.P., PROC Jul 97* 1144-1168
Masks
nanolithography. *Cerrina, F., PROC Apr 97* 644-651
proximal probes, nanofabrication, STM and AFM. *Snow, E.S., + , PROC Apr 97* 601-611
X-ray nanolithography. *Cerrina, F., PROC Apr 97* 644-651
Matched filters
opt. pattern recogn. archits./techs. *Yu, F.T.S., + , PROC May 96* 733-752
smart struct., sens. and proc. *Spillman, W.B., Jr., PROC Jan 96* 68-77
wavelets in biomedical appls. review. *Unser, M., + , PROC Apr 96* 626-638
Matching; cf. Image matching
Materials processing
vertical-cavity surface emitting lasers, moving from research to mfg. *Choquette, K.D., + , PROC Nov 97* 1730-1739
Materials processing; cf. Etching
Materials science and technology
future challenges and directions for nitride materials and light emitters. *Akasaki, I., + , PROC Nov 97* 1750-1751
Mathematical programming; cf. Dynamic programming; Quadratic programming
Mathematics; cf. Optimization methods
Matrices
book review; Linear Matrix Inequalities in System and Control Theory (Boyd, S., et al.; 1994). *Yaz, E.E., PROC Apr 97* 698-699
Matrix decomposition
image proc., block data parallel archit. *Alexander, W.E., + , PROC Jul 96* 947-968
Maximum entropy methods
antenna arrays appl. to mobile commun., beamforming and DOA aspects. *Godara, L.C., PROC Aug 97* 1195-1245

Maximum likelihood estimation
antenna arrays appl. to mobile commun., beamforming and DOA aspects. *Godara, L.C., PROC Aug 97* 1195-1245
blind syst. ident. techs., review. *Abed-Meraim, K., + , PROC Aug 97* 1310-1322
Maximum principle
book review; Optimal Control Theory for Infinite Dimensional Systems (Li, X., and Yong, J.; 1995). *Lenhart, S., PROC Feb 97* 338-339
Mean square error methods
multitarget-multisensor air traffic surveillance, interact. multiple model estim. *Yeddanapudi, M., + , PROC Jan 97* 80-96
Measurement; cf. Antenna measurements; Biomedical measurements; Electromagnetic measurements; Extraterrestrial measurements; Mechanical variables measurement; Optical variables measurement; Radar measurements; Remote sensing
Mechanical engineering
internal combustion engine, knock detect., mech. signature anal., time-freq. methods. *Samimy, B., + , PROC Sep 96* 1330-1343
Mechanical factors
internal combustion engine, knock detect., mech. signature anal., time-freq. methods. *Samimy, B., + , PROC Sep 96* 1330-1343
skeletal muscle/cardiac vibrs., time-freq. anal. *Wood, J.C., + , PROC Sep 96* 1281-1294
Mechanical factors; cf. Biomechanics; Dynamics; Vibrations
Mechanical systems
internal combustion engine, knock detect., mech. signature anal., time-freq. methods. *Samimy, B., + , PROC Sep 96* 1330-1343
Mechanical variables control; cf. Motion control; Position control; Velocity control
Mechanical variables measurement
proc. machine monitoring sens., vibr. anal., time-freq. anal. *Atlas, L.E., + , PROC Sep 96* 1319-1329
Mechanical variables measurement; cf. Strain measurement
Medical diagnosis
skeletal muscle/cardiac vibrs., time-freq. anal. *Wood, J.C., + , PROC Sep 96* 1281-1294
Medical treatment
cardiac tissue, elec. stimulation laws. *Tacker, W.A., + , PROC Mar 96* 355-365
defibrillation/cardioversion mechanism. *Jones, J.L., + , PROC Mar 96* 392-403
Medical treatment; cf. Surgery
Memories
batt.-powered portable computers, technol. trends. *Harris, E.P., + , PROC Apr 95* 636-658
computer memory systs., historical survey. *Eckert, J.P., Jr, PROC Jan 97* 184-197
intro. to classic paper on digital computer memories by J.P. Eckert (classic paper reprint, pp. 184-197). *Schneck, P.B., PROC Jan 97* 181-183
Memories; cf. Associative memories; DRAM chips; Optical memories; Semiconductor memories; SRAM chips
Memory architecture
flash memory cells, review. *Pavan, P., + , PROC Aug 97* 1248-1271
Memory hierarchies
low-power RAM cct. technol. trends. *Itoh, K., + , PROC Apr 95* 524-543
Memory management
Stanford FLASH multiprocessor, hardware/software co-design. *Heinrich, M., + , PROC Mar 97* 455-466
MESFETs
GaN based devices and technol. *Mohammad, S.N., + , PROC Oct 95* 1306-1355
Metallization; cf. Integrated circuit metallization
Meteorology; cf. Rain
Microcomputer applications
book review; How to Design a Single Phase Motor on a Personal Computer, 4th edn. (Veinott, C.). *Salon, S., PROC Mar 95* 485
book review; The Wiley Project Engineer's Desk Reference (Heisler, S.I.; 1994). *Schoch, K.F., Jr., PROC Mar 95* 485
Microcomputers
batt.-powered portable computers, technol. trends. *Harris, E.P., + , PROC Apr 95* 636-658
Microcontrollers
Stanford FLASH multiprocessor, hardware/software co-design. *Heinrich, M., + , PROC Mar 97* 455-466
Microelectromechanical devices
micromachining for opt. and optoelctronic systs. *Wu, M.C., PROC Nov 97* 1833-1856
Microelectromechanical devices; cf. Microsensors
Micromachining
biosensor, micromachined device. *Baselt, D.R., + , PROC Apr 97* 672-680
micromachining for opt. and optoelctronic systs. *Wu, M.C., PROC Nov 97* 1833-1856
optoelectronics technology (special issue). *PROC Nov 97* 1671-1874
optoelectronics technology, special issue intro. *Lo, Y.-H., PROC Nov 97* 1671-1672
Microprocessors
compiler technol. for future μP. *Hwu, W.W., + , PROC Dec 95* 1625-1640
Cyrix 6×86 μP. *McMahan, S.C., + , PROC Dec 95* 1664-1672
fuzzy control, hardware soln. *Costa, A., + , PROC Mar 95* 422-434
high-end proc., CMOS and bipolar, perform. trends. *Sai-Halasz, G.A., PROC Jan 95* 20-36
hist. of single chip microcomputers. *Mazor, S., PROC Dec 95* 1601-1608
microprocessors (special issue). *PROC Dec 95* 1439-1512
Si scaled submicron ultra-low power CMOS technol. *Stork, J.M.C., PROC Apr 95* 607-618
superscalar proc., microarchitecture. *Smith, J.E., + , PROC Dec 95* 1609-1624
technol. and business. *Tredennick, N., PROC Dec 95* 1641-1652
UltraSPARC-I μP, microarchitecture design. *Tremblay, M., + , PROC Dec 95* 1653-1663
Microprocessors; cf. Microcontrollers
Microscopy
opt. scanning holography, tutorial. *Ting-Chung Poon, + , PROC May 96* 753-764
Microscopy; cf. Atomic force microscopy; Magnetic force microscopy
Microsensors
biosensor, micromachined device. *Baselt, D.R., + , PROC Apr 97* 672-680
Microwave circuits; cf. Microwave oscillators
Microwave communication; cf. Microwave radio communication
Microwave devices; cf. Masers
Microwave generation
mol. amplif. and generation of microwaves. *Wittke, J.P., PROC Jul 97* 1144-1168
Microwave generation; cf. Microwave oscillators
Microwave measurements
S-band polarimetric radar meas. appl., Ka-band atten. predict. *Beaver, J.D., + , PROC Jun 97* 893-909
Microwave measurements; cf. Microwave radiometry
Microwave oscillators
mol. amplif. and generation of microwaves. *Wittke, J.P., PROC Jul 97* 1144-1168
Microwave propagation
transoceanic commun. of pass. satellites. *Pierce, J.R., + , PROC Jun 97* 1011-1019
Microwave propagation; cf. Microwave radio propagation
Microwave radio communication
IRE Proceedings 1913-1937, elec. and electronics engng. evoln. *Brittain, J.E., PROC Dec 96* 1747-1772
Microwave radiometry
ACTS propag. expt. for Ka-band satellite commun. syst. design. *Crane, R.K., + , PROC Jun 97* 863-878
Microwave radio propagation
Ka-band Earth-satellite propag. data, syst. requirements. *Rogers, D.V., + , PROC Jun 97* 810-820
Ka-band propag. meas., ACTS. *Bauer, R., PROC Jun 97* 853-862
Microwave radio propagation meteorological factors
ACTS propag. data at 20 and 27.5 GHz, fade slope anal. *Feil, J., + , PROC Jun 97* 926-935
ACTS propag. expt., atten. distrib. obs. and predict. model comparisons. *Crane, R.K., + , PROC Jun 97* 879-892
ACTS propag. expt. for Ka-band satellite commun. syst. design. *Crane, R.K., + , PROC Jun 97* 863-878
ACTS propag. expt., rain-rate distrib. obs. and prediction model comparisons. *Crane, R.K., + , PROC Jun 97* 946-958
cumulative fade distribs. and freq. scaling techs., 20 GHz from ACTS and 12 GHz from DSS. *Goldhirsh, J., + , PROC Jun 97* 910-916
Ka-band Earth-space propag. research in Japan. *Karasawa, Y., + , PROC Jun 97* 821-842
Ka-band propag., three-site comparison of fade-duration meas. *Helmken, H., + , PROC Jun 97* 917-925
Ka-band satellite links, open-loop uplink power control. *Dissanayake, A.W., PROC Jun 97* 959-969
Ka-band scintillations, meas. and model predictions. *Mayer, C.E., + , PROC Jun 97* 936-945
Ka-band slant path propag., European research. *Arbesser-Rastburg, B.R., + , PROC Jun 97* 843-852
Ka-band VSATs, channel charactn. and modelling. *Alouini, M.-S., + , PROC Jun 97* 981-997
S-band polarimetric radar meas. appl., Ka-band atten. predict. *Beaver, J.D., + , PROC Jun 97* 893-909
three-site space-diversity expt., 20 GHz, ACTS. *Goldhirsh, J., + , PROC Jun 97* 970-980
Microwave technology
birth of term "microwaves". *Pelosi, G., PROC Feb 96* 326

Microwave technology; cf. Microwave...
Military aircraft
fighter aircraft fault tolerant fuzzy control. *Kwong, W.A., + , PROC Mar 95* 466-483
Military communication
distributed interactive simul., networking technol. *Pullen, J.M., + , PROC Aug 95* 1156-1167
Military computing
Defense Department, distributed interactive simul. technol. appl. *Shiflett, J.E., + , PROC Aug 95* 1168-1178
distributed interactive simul., future technol. challenges. *Reddy, R., + , PROC Aug 95* 1188-1195
distributed interactive simul., networking technol. *Pullen, J.M., + , PROC Aug 95* 1156-1167
multisensor data fusion, state of art/appls. *Hall, D.L., + , PROC Jan 97* 6-23
SIMNET, simulator networking, mil. training. *Miller, D.C., + , PROC Aug 95* 1114-1123
Military data processing
XTRS LADAR, model-based automatic target recogn. syst. *Verly, J.G., + , PROC Feb 96* 126-163
Military decision-making
warfare modeling and simul., distributed interactive simul. *Davis, P.K., PROC Aug 95* 1138-1155
Military equipment
corrections to "comments on diffraction principles and limitations of RCS reduction techniques" (Dec 96 1830-1851). *Ufimtsev, P.Y., PROC Mar 97* 475
imaging laser radar transmitters in near/far IR. *Osche, G.R., + , PROC Feb 96* 103-125
laser radar imaging sens. for robotic appls. *Carmer, D.C., + , PROC Feb 96* 299-320
multisensor data fusion, state of art/appls. *Hall, D.L., + , PROC Jan 97* 6-23
radar develop. *Schneider, E.G., PROC Dec 96* 1775-1827
RCS reduction, diffr. principles and limitations. *Ufimtsev, P.Y., PROC Dec 96* 1830-1851
XTRS LADAR, model-based automatic target recogn. syst. *Verly, J.G., + , PROC Feb 96* 126-163
Military land vehicles
XTRS LADAR, model-based automatic target recogn. syst. *Verly, J.G., + , PROC Feb 96* 126-163
Millimeter wave antennas
corrections to "Precision DSN radiometer systems: impact on microwave calibrations" (May 94 776-787). *Stelzried, C.T., + , PROC Aug 96* 1187
Millimeter wave communication; cf. Millimeter wave radio communication
Millimeter wave measurements
corrections to "Precision DSN radiometer systems: impact on microwave calibrations" (May 94 776-787). *Stelzried, C.T., + , PROC Aug 96* 1187
Millimeter wave radio communication
Ka-band propagation effects on earth-satellite links (special issue. *PROC Jun 97* 807-1019
Ka-band propagation effects on earth-satellite links, special issue intro. *Davarian, F., + , PROC Jun 97* 807-809
Millimeter wave radiometry
corrections to "Precision DSN radiometer systems: impact on microwave calibrations" (May 94 776-787). *Stelzried, C.T., + , PROC Aug 96* 1187
Millimeter wave radio propagation
Ka-band Earth-satellite propag. data, syst. requirements. *Rogers, D.V., + , PROC Jun 97* 810-820
Ka-band propag. meas., ACTS. *Bauer, R., PROC Jun 97* 853-862
Millimeter wave radio propagation meteorological factors
ACTS propag. expt., atten. distrib. obs. and predict. model comparisons. *Crane, R.K., + , PROC Jun 97* 879-892
ACTS propag. expt. for Ka-band satellite commun. syst. design. *Crane, R.K., + , PROC Jun 97* 863-878
ACTS propag. expt., rain-rate distrib. obs. and prediction model comparisons. *Crane, R.K., + , PROC Jun 97* 946-958
Ka-band Earth-space propag. research in Japan. *Karasawa, Y., + , PROC Jun 97* 821-842
Ka-band propagation effects on earth-satellite links (special issue. *PROC Jun 97* 807-1019
Ka-band propagation effects on earth-satellite links, special issue intro. *Davarian, F., + , PROC Jun 97* 807-809
Ka-band propag., three-site comparison of fade-duration meas. *Helmken, H., + , PROC Jun 97* 917-925
Ka-band satellite links, open-loop uplink power control. *Dissanayake, A.W., PROC Jun 97* 959-969
Ka-band scintillations, meas. and model predictions. *Mayer, C.E., + , PROC Jun 97* 936-945
Ka-band slant path propag., European research. *Arbesser-Rastburg, B.R., + , PROC Jun 97* 843-852
Ka-band VSATs, channel charactn. and modelling. *Alouini, M.-S., + , PROC Jun 97* 981-997
S-band polarimetric radar meas. appl., Ka-band atten. predict. *Beaver, J.D., + , PROC Jun 97* 893-909
Millimeter wave receivers
corrections to "Precision DSN radiometer systems: Impact on microwave calibrations" (May 94 776-787). *Stelzried, C.T., + , PROC Aug 96* 1187
MISFETs
GaN based devices and technol. *Mohammad, S.N., + , PROC Oct 95* 1306-1355
MISFETs; cf. MOSFETs
Mixed analog-digital integrated circuits
multirate analog-digital systs. for sig. proc./conversion. *Franca, J., + , PROC Feb 97* 242-262
Mobile antennas
arrays, channel requirement, appls. *Godara, L.C., PROC Jul 97* 1031-1060
Mobile communication
batt.-powered portable computers, technol. trends. *Harris, E.P., + , PROC Apr 95* 636-658
blind syst. ident. techs., review. *Abed-Meraim, K., + , PROC Aug 97* 1310-1322
pers. commun. systs., review. *Li, V.O.K., + , PROC Sep 95* 1210-1243
video-on-demand portable syst. in wireless commun. *Meng, T.H., + , PROC Apr 95* 659-680
Mobile communication; cf. Land mobile radio; Portable radio communication; Satellite mobile communication; Space vehicle communication
Mobile robot motion-planning
mobile robot, environ. representation, multiple abstraction levels. *Dudek, G.L., PROC Nov 96* 1684-1704
navig. of mobile robots, sens. fusion, self-location techs. *Kam, M., + , PROC Jan 97* 110-119
Mobile robots
autonomous vehicles. *Meyrowitz, A.L., + , PROC Aug 96* 1147-1164
laser radar imaging sens. for robotic appls. *Carmer, D.C., + , PROC Feb 96* 299-320
Modeling
ACTS propag. expt., atten. distrib. obs. and predict. model comparisons. *Crane, R.K., + , PROC Jun 97* 879-892
ACTS propag. expt., rain-rate distrib. obs. and prediction model comparisons. *Crane, R.K., + , PROC Jun 97* 946-958
book review; Stochastic Systems for Engineers: Modelling, Estimation and Control (Borrie, J.A.; 1992). *Toumodge, S., PROC Apr 95* 695
distributed detect. with multiple sens., review. *Blum, R.S., + , PROC Jan 97* 64-79
Ka-band scintillations, meas. and model predictions. *Mayer, C.E., + , PROC Jun 97* 936-945
Ka-band VSATs, channel charactn. and modelling. *Alouini, M.-S., + , PROC Jun 97* 981-997
warfare modeling and simul., distributed interactive simul. *Davis, P.K., PROC Aug 95* 1138-1155
Modeling; cf. Biological system modeling; Integrated circuit modeling; Power system modeling
Model reference adaptive control
book review; Model Reference Adaptive Control: From Theory to Practice (Butler, H.; 1992). *Toumodge, S., PROC Apr 95* 694-695
Modems
satellite CDMA transm. for mobile and pers. commun. *De Gaudenzi, R., + , PROC Jan 96* 18-39
MODFETs
STM/AFM nano-oxid. proc., single-electron transistors, photoconductive switches, HEMT. *Matsumoto, K., PROC Apr 97* 612-628
Modulation
corrections to "Emerging applications of multirate signal processing and wavelets in digital communications" (Apr 96 586-603). *Wornell, G.W., PROC Aug 96* 1187-1188
digital commun., multirate sig. proc. and wavelets appls. *Wornell, G.W., PROC Apr 96* 586-603
Modulation/demodulation; cf. Acoustooptic modulation; Digital modulation; Frequency modulation: Optical modulation; Pulse position modulation
Molecular electronics
amplif. and generation of microwaves. *Wittke, J.P., PROC Jul 97* 1144-1168
hist., forty yrs. of develop. *Chapin Cutler, C., PROC Jul 97* 1141-1143
nanoelectronic switching devices, mol., single-electron and quantum-effect devices. *Goldhaber-Gordon, D., + , PROC Apr 97* 521-540
Monitoring
civ. engng. smart structs., distrib. fiber optic technols. *Culshaw, B., + , PROC Jan 96* 78-86

GPS wide area augmentation for aircraft navig. *Enge, P., + , PROC Aug 96* 1063-1088
hybrid neural network/spectrosc. chem. anal. *Taiwei Lu, + , PROC Jun 96* 895-905
Monitoring; cf. Biomedical monitoring; Process monitoring
Monolithic integrated circuits
low power microelectronics, develop. and prospects. *Meindl, J.D., PROC Apr 95* 619-635
Monopole antennas
cellular pers. commun., handset antenna/human EM interact. *Jensen, M.A., + , PROC Jan 95* 7-17
Morphological operations
adaptive morph. subband decomp., image coding. *Egger, O., + , PROC Feb 95* 272-287
region-based video coding, math. morph. *Salembier, P., + , PROC Jun 95* 843-857
MOS devices; cf. MOSFETs
MOS digital integrated circuits
single-chip microcomputers, historical develop. *Mazor, S., PROC Dec 95* 1601-1608
MOS digital integrated circuits; cf. CMOS digital integrated circuits
MOSFET circuits; cf. MOS integrated circuits
MOSFET logic devices; cf. CMOSFET logic devices
MOSFETs
nanostructure fab., electron beam techs. *Matsui, S., PROC Apr 97* 629-643
MOSFETs; cf. CMOSFETs; MOS integrated circuits
MOS integrated circuits
book review; Hot-Carrier Reliability of MOS VLSI Circuits (Leblebici, Y., and Kang, S.-M.; 1993). *Kwark, Y.H., PROC Mar 95* 486-487
MOS integrated circuits; cf. CMOS integrated circuits
Motion analysis; cf. Image motion analysis
Motion compensation
Grand Alliance syst. for US HDTV. *Challapali, K., + , PROC Feb 95* 158-174
model-based video coding techs. for low bit-rate appl. *Aizawa, K., + , PROC Feb 95* 259-271
noise reduction filters for dyn. image seqs., review. *Brailean, J.C., + , PROC Sep 95* 1272-1292
region-based video coding, math. morph. *Salembier, P., + , PROC Jun 95* 843-857
Motion control
interactive TV, digital actors. *Magnenat Thalmann, N., + , PROC Jul 95* 1022-1031
mol. motion control. *Dahleh, M., + , PROC Jan 96* 7-15
Motion measurement; cf. Tracking
Motion-planning
autonomous robots, adaptive neural control. *Schmajuk, N.A., PROC Oct 96* 1553-1561
Motion-planning; cf. Mobile robot motion-planning
Motors
book review; How to Design a Single Phase Motor on a Personal Computer, 4th edn. (Veinott, C.). *Salon, S., PROC Mar 95* 485
book review; The Wiley Project Engineer's Desk Reference (Heisler, S.I.; 1994). *Schoch, K.F., Jr., PROC Mar 95* 485
Motors; cf. Induction motors
Multiaccess communication
pers. commun. systs., review. *Li, V.O.K., + , PROC Sep 95* 1210-1243
Multiaccess communication; cf. Subscriber loops
Multibeam antennas
ACTS, antenna config. and for Ka-band propag. meas. *Bauer, R., PROC Jun 97* 853-862
Multicast channels
distributed interactive simul., networking technol. *Pullen, J.M., + , PROC Aug 95* 1156-1167
tag switching archit. overview. *Rekhter, Y., + , PROC Dec 97* 1973-1983
Multichip modules
modular massively parallel computing approach, image-related proc. *Krikelis, A., + , PROC Jul 96* 988-1004
Multidimensional coding
opt. scanning holography, tutorial. *Ting-Chung Poon, + , PROC May 96* 753-764
Multidimensional digital filters
image proc., block data parallel archit. *Alexander, W.E., + , PROC Jul 96* 947-968
Multidimensional systems
book review; Optimal Control Theory for Infinite Dimensional Systems (Li, X., and Yong, J.; 1995). *Lenhart, S., PROC Feb 97* 338-339
Multiinput–multioutput systems; cf. Multivariable systems
Multilayer perceptrons
image compression, neural network approaches. *Dony, R.D., + , PROC Feb 95* 288-303
nonlin. vector predictor, neural net approach. *Rizvi, S.A., + , PROC Oct 96* 1513-1528
Multimedia communication
convergence of telecomms. and computing to networking models for integrated services and appls. *Decina, M., + , PROC Dec 97* 1887-1914
embedded software in real-time sig. proc., telecom appl. *Paulin, P.G., + , PROC Mar 97* 419-435
integrated services in Internet, state of art. *White, P.P., + , PROC Dec 97* 1934-1946
interactive TV, digital actors. *Magnenat Thalmann, N., + , PROC Jul 95* 1022-1031
issues and infrastructure. *Wolf, L.C., + , PROC Dec 97* 1915-1933
review of distributed multimedia syst. *Li, V.O.K., + , PROC Jul 97* 1063-1108
VLSI for digital HDTV. *Mlynek, D.J., + , PROC Jul 95* 1055-1070
wireless commun. in twenty-first century. *Shafi, M., + , PROC Oct 97* 1622-1638
Multimedia systems
distributed multimedia systs., tech. survey. *Li, V.O.K., + , PROC Jul 97* 1063-1108
Multipath channels
advanced TV systs. for terrestrial broadcasting, problems and solns. *Schreiber, W.F., PROC Jun 95* 958-981
corrections to "Emerging applications of multirate signal processing and wavelets in digital communications" (Apr 96 586-603). *Wornell, G.W., PROC Aug 96* 1187-1188
digital commun., multirate sig. proc. and wavelets appls. *Wornell, G.W., PROC Apr 96* 586-603
IR wireless high-speed short-range digital commun. *Kahn, J.M., + , PROC Feb 97* 265-298
satellite CDMA transm. for mobile and pers. commun. *De Gaudenzi, R., + , PROC Jan 96* 18-39
Multipath channels; cf. Fading channels
Multiplexing; cf. Subcarrier multiplexing; Wavelength division multiplexing
Multiprocessing
image proc., 1D proc. array. *Hammerstrom, D.W., + , PROC Jul 96* 1005-1018
Stanford FLASH multiprocessor, hardware/software co-design. *Heinrich, M., + , PROC Mar 97* 455-466
Multiprocessing; cf. Neural networks
Multireflector antennas
ACTS, antenna config. and for Ka-band propag. meas. *Bauer, R., PROC Jun 97* 853-862
Multisensor systems
archits. and appls. *Dasarathy, B.V., PROC Jan 97* 24-38
database support, data fusion automation. *Antony, R.T., PROC Jan 97* 39-53
data fusion (special issue). *PROC Jan 97* 3-183
data fusion, special issue intro. *Varshney, P.K., PROC Jan 97* 3-5
distributed detect. with multiple sens., fund. *Viswanathan, R., + , PROC Jan 97* 54-63
distributed detect. with multiple sens., review. *Blum, R.S., + , PROC Jan 97* 64-79
distributed fusion archits. and algms. for target tracking. *Liggins, M.E., II, + , PROC Jan 97* 97-109
groundwater flow, hydraulic cond., sig.-level fusion, multiresolution method. *Daniel, M.M., + , PROC Jan 97* 164-180
mobile robot navig., sens. fusion, self-location techs. *Kam, M., + , PROC Jan 97* 110-119
multisensor data fusion, state of art/appls. *Hall, D.L., + , PROC Jan 97* 6-23
multisensor imagery positioning for target recogn. and exploitation. *Chellappa, R., + , PROC Jan 97* 120-138
multitarget-multisensor air traffic surveillance, interact. multiple model estim. *Teddanapudi, M., + , PROC Jan 97* 80-96
multi-target pass. tracking, neural net optim. *Shams, S., PROC Oct 96* 1442-1457
SAR images, spatial resoln., fusion, data sets. *Costantini, M., + , PROC Jan 97* 139-146
scene interp., multiple sens. modalities, phys.-based integrat. *Nandhakumar, N., + , PROC Jan 97* 147-163
Multivariable systems
parallel nonlin. systs., modeling and ident., param. estim. *Hai-Wen Chen, PROC Jan 95* 39-66
Multivibrators; cf. Flip-flops
Muscles
arrhythmogenesis, computer models, tissue struct./membrane dyn. roles. *Henriquez, C.S., + , PROC Mar 96* 334-354
cardiac muscle, detrimental effects of elec. fields. *Tung, L., PROC Mar 96* 366-378
myocardial tissue, externally applied elec. fields effect. *Roth, B.J., + , PROC Mar 96* 379-391

skeletal muscle/cardiac vibrs., time-freq. anal. *Wood, J.C., + , PROC Sep 96* 1281-1294
Music
acoustic sigs. charact., continuous lin. time-freq. representation. *Guillemain, P., + , PROC Apr 96* 561-585
sigs., time-freq. anal. *Pielemeier, W.J., + , PROC Sep 96* 1216-1230

N

Nanotechnology
Boolean logic, nanoelectronic archit., double-barrier reson. tunneling diode. *Roychowdhury, V.P., + , PROC Apr 97* 574-588
CMOS scaling into nanometer regime, fund. phys. effects, practicality. *Yuan Taur, + , PROC Apr 97* 486-504
electron beam techs. *Matsui, S., PROC Apr 97* 629-643
nanometer-scale science and technology (special issue). *PROC Apr 97* 483-680
nanometer-scale science and technology, special issue intro. *Marrian, C.R.K., PROC Apr 97* 483-485
patterned mag. nanostructures and quantized mag. disks. *Chou, S.Y., PROC Apr 97* 652-671
proximal probes, nanofabrication, STM and AFM. *Snow, E.S., + , PROC Apr 97* 601-611
QCA, quantum-dot cellular automata, pipelined archit. appl. *Lent, C.S., + , PROC Apr 97* 541-557
quantum-effect devices, fault tolerance, design. *Goser, K.F., + , PROC Apr 97* 558-573
STM/AFM nano-oxid. proc., single-electron transistors, photoconductive switches, HEMT. *Matsumoto, K., PROC Apr 97* 612-628
switching devices, mol., single-electron and quantum-effect devices. *Goldhaber-Gordon, D., + , PROC Apr 97* 521-540
UHV STM nanofabrication, nanolithography tool, selective oxid., metallization. *Lyding, J.W., PROC Apr 97* 589-600
X-ray nanolithography. *Cerrina, F., PROC Apr 97* 644-651
Navigation
fiber optic smart struct. sens. *Udd, E., PROC Jun 96* 884-894
mobile robot, environ. representation, multiple abstraction levels. *Dudek, G.L., PROC Nov 96* 1684-1704
mobile robot navig., sens. fusion, self-location techs. *Kam, M., + , PROC Jan 97* 110-119
Navigation; cf. Aircraft navigation; Mobile robot motion-planning
Nervous system
human brain NMR image anal. by neural net. *Gelenbe, E., + , PROC Oct 96* 1488-1496
Networks
communications in the twenty-first century (special issue). *PROC Oct 97* 1519-1661
communications in the twenty-first century, special issue intro. *Cochrane, P., PROC Oct 97* 1519-1522
Networks; cf. Computer networks; Neural networks
Network servers
heterog. servers network, service provision, user selection. *Olafsson, S., PROC Oct 97* 1556-1562
Neural network applications
ATM network traffic mgt. by neural net. *Habib, I.W., PROC Oct 96* 1430-1441
book review; Neural Networks: Current Applications (Lisboa, P.G.J., Ed; 1992). *Feldkamp, L.A., PROC Jan 96* 87-88
book review; Neural Networks for Optimization and Signal Processing (Cichocki, A., and Unbehauen, R.; 1993). *Swiniarski, R.W., PROC Jul 95* 1106
book review; Neural Networks for Signal Processing (Kosko, B., Ed.; 1992). *Williams, R.J., PROC Oct 95* 1432-1433
engineering applications of artificial neural networks (special issue). *PROC Oct 96* 1355-1569
fingerprint class./ident. by SOFM neural net. *Halici, U., + , PROC Oct 96* 1497-1512
GRAIL, multi-agent neural net gene ident. syst. *Ying Xu, + , PROC Oct 96* 1544-1552
human brain NMR image anal. by neural net. *Gelenbe, E., + , PROC Oct 96* 1488-1496
image compression, neural network approaches. *Dony, R.D., + , PROC Feb 95* 288-303
low bit rate video compression by neural net. *Cramer, C., + , PROC Oct 96* 1529-1543
med. image lossy compression by neural net. *Panagiotidis, N.G., + , PROC Oct 96* 1474-1487
mobile robot navig., sens. fusion, self-location techs. *Kam, M., + , PROC Jan 97* 110-119
multi-target pass. tracking, neural net optim. *Shams, S., PROC Oct 96* 1442-1457
neural nets, control appls., practise. *Narendra, K.S., PROC Oct 96* 1385-1406
nonlin. vector predictor, neural net approach. *Rizvi, S.A., + , PROC Oct 96* 1513-1528
nuc. med. image restoration by neural net. *Wei Qian, + , PROC Oct 96* 1458-1473
radar detect. of sigs. in chaos, small target in sea clutter. *Haykin, S., + , PROC Jan 95* 95-122
self-organizing map, props., engng. appls. *Kohonen, T., + , PROC Oct 96* 1358-1384
telephone network traffic neural net mgt. *Ambrose, B.E., + , PROC Oct 96* 1421-1429
Neural network applications; cf. Neurocontrollers
Neural network hardware
book review; Analog VLSI Implementation of Neural Systems (Mead, C., and Ismail, M., Eds.; 1989). *Andreou, A.G., PROC Oct 95* 1430-1431
Neural networks
ANN for stat. recogn. of continuous speech. *Morgan, N., + , PROC May 95* 742-772
autonomous robots, adaptive neural control. *Schmajuk, N.A., PROC Oct 96* 1553-1561
book review; Connectionism and Psychology (Quinlan, P.; 1991). *Kruschke, J.K., PROC Oct 95* 1431-1432
book review; Fundamentals of Artificial Neural Networks (Hassoun, M.H.; 1995). *Arabshahi, P., PROC Jun 96* 906-907
book review; Introduction to the Theory of Neural Computation (Hertz, J., et al.; 1991). *Abu-Mostafa, Y.S., PROC May 96* 799
book review; Neural Networks: A Comprehensive Foundation (Haykin, S.; 1994). *Hwang, J.-N., PROC Sep 95* 1294-1296
eigenface, elastic matching, neural nets, face recogn. *Jun Zhang, + , PROC Sep 97* 1423-1435
Neural networks; cf. Multilayer perceptrons: Optical neural networks; Recurrent neural networks; Self-organizing feature maps
Neurocontrollers
autonomous robots, adaptive neural control. *Schmajuk, N.A., PROC Oct 96* 1553-1561
dyn. neural net for vehicle idle speed control. *Puskorius, G.V., + , PROC Oct 96* 1407-1420
mobile robot navig., sens. fusion, self-location techs. *Kam, M., + , PROC Jan 97* 110-119
neural nets, control appls., practise. *Narendra, K.S., PROC Oct 96* 1385-1406
neuro-fuzzy modeling/control, adaptive network. *Jang, J.-S.R., + , PROC Mar 95* 378-406
Nonlinear programming; cf. Quadratic programming
Nonlinear systems
dyn. neural net for vehicle idle speed control. *Puskorius, G.V., + , PROC Oct 96* 1407-1420
large power syst. stabil. anal., taxonomy theory-based. *Venkatasubramanian, V., + , PROC Nov 95* 1530-1561
neural nets, control appls., practise. *Narendra, K.S., PROC Oct 96* 1385-1406
nonlinear phenomena in power systems: theory and practical implications (special issue). *PROC Nov 95* 1439-1587
parallel nonlin. systs., modeling and ident., param. estim. *Hai-Wen Chen, PROC Jan 95* 39-66
radar detect. of sigs. in chaos, small target in sea clutter. *Haykin, S., + , PROC Jan 95* 95-122
Numerical methods
book review; Computational Methods for Electromagnetics and Microwaves (Booton, R.C.; 1992). *Kuchta, D.M., PROC Jan 95* 123-124
Numerical methods; cf. Approximation methods; Optimization methods

O

Obituaries
Mac Elwyn Van Valkenburg. *Trick, T.N., PROC Nov 97* 1675-1677
Object oriented methods
ATM public networks, perform. mgt., scaleable and flexible approach. *Azmoodeh, M., + , PROC Oct 97* 1639-1645
semiotic paradigm for hypermedia data and coding models. *Gonzalez, R., PROC Jul 97* 1111-1140
Object recognition
fn. recogn., reasoning, partial shape model. *Stark, L., + , PROC Nov 96* 1640-1656
iris recogn. *Wildes, R.P., PROC Sep 97* 1348-1363
scene interp., multiple sens. modalities, phys.-based integrat. *Nandhakumar, N., + , PROC Jan 97* 147-163
signals and systems (special section). *PROC Nov 96* 1579-1580, 1623-1704

Occupational health and safety
cancer risk assess., weak EM fields. *Foster, K.R., + , PROC May 97* 733-746
Ohmic contacts
GaN based devices and technol. *Mohammad, S.N., + , PROC Oct 95* 1306-1355
Open systems
distributed interactive simul. environ. *Hofer, R.C., + , PROC Aug 95* 1124-1137
Operating systems
book review; Developing Online Help for Windows (Boggan, S., et al.; 1993). *Barker, T.T., PROC Jun 95* 997-998
Operational amplifiers
CMOS op-amp imperfections reduction, autozeroing, correl. double sampling, chopper stabil. *Enz, C.C., + , PROC Nov 96* 1584-1614
Optical amplifiers
WDM opt. fiber networks, opt. components, review. *Borella, M.S., + , PROC Aug 97* 1274-1307
Optical amplifiers; cf. Optical fiber amplifiers
Optical arrays
1D opt. phased array technol., sens. appls. *McManamon, P.F., + , PROC Feb 96* 268-298
Optical character recognition
tax forms, names and addresses, reading syst. *Srihari, S.N., + , PROC Jul 96* 1038-1049
Optical communication
laser satellite commun. network, vibr. effect and solns. *Arnon, S., + , PROC Oct 97* 1646-1661
wireless infrared communications, prolog. *Falk, H., PROC Feb 97* 263-264
Optical communication; cf. Optical fiber communication; SONET
Optical communication equipment
Bragg cell Integrated acoustooptic/magnetooptic modulator devices for opt. inform. proc. *Tsai, C.S., PROC Jun 96* 853-869
opt. fibers and amps. for WDM systs. *Yadlowsky, M.J., + , PROC Nov 97* 1765-1779
WDM opt. fiber networks, opt. components, review. *Borella, M.S., + , PROC Aug 97* 1274-1307
Optical communication equipment; cf. Optical receivers; Optical transmitters
Optical components
modified sign digit no. representation, opt. computing/interconnects. *Yatagai, T., + , PROC Jun 96* 828-852
Optical computing
modified sign digit no. representation, opt. computing/interconnects. *Yatagai, T., + , PROC Jun 96* 828-852
optical information processing, part 2: applications - nonimage signal processing (special issue). *PROC Jun 96* 811-905
Optical correlators
wavelet proc. and optics. *Yao Li, + , PROC May 96* 720-732
Optical data processing
Bragg cell Integrated acoustooptic/magnetooptic modulator devices for opt. inform. proc. *Tsai, C.S., PROC Jun 96* 853-869
electrooptic displays for opt. inform. proc. *Karim, M.A., + , PROC Jun 96* 814-827
optical information processing, part 1: image processing and vision (special issue). *PROC May 96* 691-798
quantum inform. proc., cryptography/computation/teleportation. *Spiller, T.P., PROC Dec 96* 1719-1746
Optical detectors; cf. Photodetectors
Optical distance measurement
XTRS LADAR, model-based automatic target recogn. syst. *Verly, J.G., + , PROC Feb 96* 126-163
Optical distortion
IR wireless high-speed short-range digital commun. *Kahn, J.M., + , PROC Feb 97* 265-298
Optical feedback
review, opt. inform. proc. and beyond. *Ichioka, Y., + , PROC May 96* 694-719
Optical fiber amplifiers
long-dist. lightwave telecomms., opt. fiber amps. *Giles, R., + , PROC Jun 96* 870-883
opt. fibers and amps. for WDM systs. *Yadlowsky, M.J., + , PROC Nov 97* 1765-1779
Optical fiber communication
long-dist. lightwave telecomms., opt. fiber amps. *Giles, R., + , PROC Jun 96* 870-883
opt. fibers and amps. for WDM systs. *Yadlowsky, M.J., + , PROC Nov 97* 1765-1779
overview of broadband access technols. *Gagnaire, M., PROC Dec 97* 1958-1972
scrambling techs. for dig. lightwave transm. *Byeong Gi Lee, + , PROC Oct 95* 1399-1428
WDM opt. fiber networks, opt. components, review. *Borella, M.S., + , PROC Aug 97* 1274-1307
Optical fiber dispersion
long-dist. lightwave telecomms., opt. fiber amps. *Giles, R., + , PROC Jun 96* 870-883
opt. fibers and amps. for WDM systs. *Yadlowsky, M.J., + , PROC Nov 97* 1765-1779
Optical fiber lasers; cf. Optical fiber amplifiers
Optical fiber measurement applications; cf. Optical fiber transducers
Optical fibers
opt. fibers and amps. for WDM systs. *Yadlowsky, M.J., + , PROC Nov 97* 1765-1779
optoelectronics technology (special issue). *PROC Nov 97* 1671-1874
optoelectronics technology, special issue intro. *Lo, Y.-H., PROC Nov 97* 1671-1672
Optical fiber transducers
civ. engng. smart structs., distrib. fiber optic technols. *Culshaw, B., + , PROC Jan 96* 78-86
smart struct. *Udd, E., PROC Jan 96* 60-67
smart struct., sens. and proc. *Spillman, W.B., Jr., PROC Jan 96* 68-77
spectrally based sens., fiber optic smart struct. *Udd, E., PROC Jun 96* 884-894
Optical filters; cf. Acoustooptic filters
Optical frequency conversion
Bragg cell Integrated acoustooptic/magnetooptic modulator devices for opt. inform. proc. *Tsai, C.S., PROC Jun 96* 853-869
imaging laser radar transmitters in near/far IR. *Osche, G.R., + , PROC Feb 96* 103-125
WDM opt. fiber networks, opt. components, review. *Borella, M.S., + , PROC Aug 97* 1274-1307
Optical image processing
opt. scanning holography, tutorial. *Ting-Chung Poon, + , PROC May 96* 753-764
pattern recogn. archits./techs. *Yu, F.T.S., + , PROC May 96* 733-752
review, opt. inform. proc. and beyond. *Ichioka, Y., + , PROC May 96* 694-719
speckle reduction in coherent inform. proc. *Iwai, T., + , PROC May 96* 765-781
wavelet proc. and optics. *Yao Li, + , PROC May 96* 720-732
Optical imaging
coherent laser radar in Europe, ground-based and airborne systs. *Vaughan, J.M., + , PROC Feb 96* 205-226
LITE, NASA space lidar for cloud and aerosol. *Winker, D.M., + , PROC Feb 96* 164-180
wind vel. rem. sens., solid-state/CO_2 lidar systs. *Huffaker, R.M., + , PROC Feb 96* 181-204
Optical interconnections
modified sign digit no. representation, opt. computing/interconnects. *Yatagai, T., + , PROC Jun 96* 828-852
Optical measurements
civ. engng. smart structs., distrib. fiber optic technols. *Culshaw, B., + , PROC Jan 96* 78-86
Optical measurements; cf. Optical transducers
Optical memories
pattern recogn. archits./techs. *Yu, F.T.S., + , PROC May 96* 733-752
principles and techs. of opt. data storage. *Mansuripur, M., + , PROC Nov 97* 1780-1796
Optical memories; cf. Holographic memories
Optical modulation
IR wireless high-speed short-range digital commun. *Kahn, J.M., + , PROC Feb 97* 265-298
Optical modulation; cf. Acoustooptic modulation
Optical neural networks
hybrid neural network/spectrosc. chem. anal. *Taiwei Lu, + , PROC Jun 96* 895-905
modified sign digit no. representation, opt. computing/interconnects. *Yatagai, T., + , PROC Jun 96* 828-852
pattern recogn. archits./techs. *Yu, F.T.S., + , PROC May 96* 733-752
review, opt. inform. proc. and beyond. *Ichioka, Y., + , PROC May 96* 694-719
Optical noise
long-dist. lightwave telecomms., opt. fiber amps. *Giles, R., + , PROC Jun 96* 870-883
Optical phase shifters
1D opt. phased array technol., sens. appls. *McManamon, P.F., + , PROC Feb 96* 268-298

Optical propagation in dispersive media; cf. Optical fiber dispersion
Optical propagation in nonlinear media; cf. Optical frequency conversion
Optical pumping
mol. amplif. and generation of microwaves. *Wittke, J.P., PROC Jul 97* 1144-1168
Optical radar; cf. Laser radar
Optical receivers
IR wireless high-speed short-range digital commun. *Kahn, J.M., + , PROC Feb 97* 265-298
laser satellite commun. network, vibr. effect and solns. *Arnon, S., + , PROC Oct 97* 1646-1661
Optical recording; cf. Magnetooptic recording
Optical refraction
1D opt. phased array technol., sens. appls. *McManamon, P.F., + , PROC Feb 96* 268-298
Optical repeaters
long-dist. lightwave telecomms., opt. fiber amps. *Giles, R., + , PROC Jun 96* 870-883
Optical signal processing
hybrid neural network/spectrosc. chem. anal. *Taiwei Lu, + , PROC Jun 96* 895-905
Optical signal processing; cf. Optical correlators
Optical switches
micromachining for opt. and optoelctronic systs. *Wu, M.C., PROC Nov 97* 1833-1856
Optical switches; cf. Acoustooptic switches
Optical tracking
laser satellite commun. network, vibr. effect and solns. *Arnon, S., + , PROC Oct 97* 1646-1661
pattern recogn. archits./techs. *Yu, F.T.S., + , PROC May 96* 733-752
Optical transducers
1D opt. phased array technol., sens. appls. *McManamon, P.F., + , PROC Feb 96* 268-298
laser radar imaging sens. for robotic appls. *Carmer, D.C., + , PROC Feb 96* 299-320
Optical transducers; cf. Optical fiber transducers
Optical transmitters
IR wireless high-speed short-range digital commun. *Kahn, J.M., + , PROC Feb 97* 265-298
laser satellite commun. network, vibr. effect and solns. *Arnon, S., + , PROC Oct 97* 1646-1661
Optical variables measurement
lasers and optics in health care. *Deutsch, T.F., PROC Nov 97* 1797-1816
Optical waveguides; cf. Optical fibers
Optics; cf. Integrated optics
Optimal control
book review; Optimal Control Theory for Infinite Dimensional Systems (Li, X., and Yong, J.; 1995). *Lenhart, S., PROC Feb 97* 338-339
mol. motion control. *Dahleh, M., + , PROC Jan 96* 7-15
Optimal control; cf. Maximum principle
Optimization methods
book review; Neural Networks for Optimization and Signal Processing (Cichocki, A., and Unbehauen, R.; 1993). *Swiniarski, R.W., PROC Jul 95* 1106
book review; Optimization and Dynamical Systems (Helmke, U., and Moore, J.; 1994). *Faybusovich, L., PROC Jun 96* 907-908
distributed detect. with multiple sens., review. *Blum, R.S., + , PROC Jan 97* 64-79
multi-target pass. tracking, neural net optim. *Shams, S., PROC Oct 96* 1442-1457
Optimization methods; cf. Approximation methods; Circuit optimization; Dynamic programming; Gradient methods; Least squares methods; Quadratic programming
Optoelectronic devices
modified sign digit no. representation, opt. computing/interconnects. *Yatagai, T., + , PROC Jun 96* 828-852
optoelectronics technology (special issue). *PROC Nov 97* 1671-1874
optoelectronics technology, special issue intro. *Lo, Y.-H., PROC Nov 97* 1671-1672
Optoelectronic devices; cf. Integrated optoelectronics; Light-emitting diodes
Oscillators
radio oscillators, radiation law determ. and theory. *Pupin, M.I., PROC Feb 97* 306-310
Oscillators; cf. Microwave oscillators
Output feedback
dyn. neural net for vehicle idle speed control. *Puskorius, G.V., + , PROC Oct 96* 1407-1420
Oxidation
proximal probes, nanofabrication, STM and AFM. *Snow, E.S., + , PROC Apr 97* 601-611
STM/AFM nano-oxid. proc., single-electron transistors, photoconductive switches, HEMT. *Matsumoto, K., PROC Apr 97* 612-628
UHV STM nanofabrication, nanolithography tool, selective oxid., metallization. *Lyding, J.W., PROC Apr 97* 589-600

P

Pacemakers; cf. Cardiac pacemakers
Packaging; cf. Integrated circuit packaging
Packet switching
guaranteed perform. service, service disciplines. *Hui Zhang, PROC Oct 95* 1374-1396
Packet switching; cf. Asynchronous transfer mode
Paging communication
CoWare hardware-software codesign tool for digital telecom systs. *Bolsens, I., + , PROC Mar 97* 391-418
low-power RF ICs for portable commun., all-CMOS radio. *Abidi, A.A., PROC Apr 95* 544-569
Pain
defibrillation/pacing electrodes, elec. behavior. *Kim, Y., + , PROC Mar 96* 446-456
Parallel algorithms
modular massively parallel computing approach, image-related proc. *Krikelis, A., + , PROC Jul 96* 988-1004
vision, high-perform. computing. *Cho-Li Wang, + , PROC Jul 96* 931-946
Parallel architectures
digital CMOS ccts., power consumption minimization. *Chandrakasan, A.P., + , PROC Apr 95* 498-523
heterog. computing. *Ekmecic, I., + , PROC Aug 96* 1127-1144
image proc., 1D proc. array. *Hammerstrom, D.W., + , PROC Jul 96* 1005-1018
image proc., block data parallel archit. *Alexander, W.E., + , PROC Jul 96* 947-968
modular massively parallel computing approach, image-related proc. *Krikelis, A., + , PROC Jul 96* 988-1004
nonlin. vector predictor, neural net approach. *Rizvi, S.A., + , PROC Oct 96* 1513-1528
opt. inform. proc. and beyond, review. *Ichioka, Y., + , PROC May 96* 694-719
opt. pattern recogn. archits./techs. *Yu, F.T.S., + , PROC May 96* 733-752
parallel architectures for image processing (special issue). *PROC Jul 96* 915-1049
QCA, quantum-dot cellular automata, pipelined archit. appl. *Lent, C.S., + , PROC Apr 97* 541-557
superscalar proc., microarchitecture. *Smith, J.E., + , PROC Dec 95* 1609-1624
video real-time proc., P^3I parallel archit. *Colaitis, M.-J., + , PROC Jul 96* 1019-1037
VLSI analog archit., motion proc. *Sarpeshkar, R., + , PROC Jul 96* 969-987
Parallel machines
superscalar proc., microarchitecture. *Smith, J.E., + , PROC Dec 95* 1609-1624
Parallel processing
book review; Parallel Computation Systems for Robotics Algorithms and Architectures (Fijany, A., and Bejczy, A., Eds.; 1992). *Sharf, I., PROC Aug 95* 1196-1197
compiler technol. for future μP. *Hwu, W.W., + , PROC Dec 95* 1625-1640
image proc. on high-perform. RISC systs., eval. *Baglietto, P., + , PROC Jul 96* 917-930
Parallel processing; cf. Multiprocessing; Pipeline processing
Parallel programming
book review; Parallel Logic Programming (Takeuchi, A.; 1992). *Mikolajczak, B., PROC Mar 95* 488
dataflow proc. networks. *Lee, E.A., + , PROC May 95* 773-801
modular massively parallel computing approach, image-related proc. *Krikelis, A., + , PROC Jul 96* 988-1004
superscalar proc., microarchitecture. *Smith, J.E., + , PROC Dec 95* 1609-1624
Parameter estimation
acoustic sigs. charact., continuous lin. time-freq. representation. *Guillemain, P., + , PROC Apr 96* 561-585
musical sigs., time-freq. anal. *Pielemeier, W.J., + , PROC Sep 96* 1216-1230
parallel nonlin. systs., modeling and ident., param. estim. *Hai-Wen Chen, PROC Jan 95* 39-66
Parameter space methods
nonlin. large power syst. stabil. anal., taxonomy theory-based. *Venkatasubramanian, V., + , PROC Nov 95* 1530-1561

Particle production; cf. Aerosols
Pattern classification
fingerprint class./ident. by SOFM neural net. *Halici, U., + , PROC Oct 96* 1497-1512
GRAIL, multi-agent neural net gene ident. syst. *Ying Xu, + , PROC Oct 96* 1544-1552
implantable cardioverter defibrillators, detect. algms. *Jenkins, J.M., + , PROC Mar 96* 428-445
Pattern classification; cf. Image classification
Pattern matching
biometric authentication, fingerprint features, syst. perform. estim. *Roddy, A.R., + , PROC Sep 97* 1390-1421
identity-authentication syst., fingerprints. *Jain, A.K., + , PROC Sep 97* 1365-1388
Pattern matching; cf. Image matching
Pattern recognition
2D image recogn., hybrid syst. *Roli, F., + , PROC Nov 96* 1659-1681
iris recogn. *Wildes, R.P., PROC Sep 97* 1348-1363
multisensor data fusion, state of art/appls. *Hall, D.L., + , PROC Jan 97* 6-23
opt. pattern recogn. archits./techs. *Yu, F.T.S., + , PROC May 96* 733-752
self-organizing map, props., engng. appls. *Kohonen, T., + , PROC Oct 96* 1358-1384
Pattern recognition; cf. Fingerprint identification; Handwriting recognition; Image recognition; Object recognition; Pattern classification; Speech recognition
Personal communication networks
batt.-powered pers. communicators, trends and limits. *Warwick, C.W., PROC Apr 95* 681-686
laser satellite commun. network, vibr. effect and solns. *Arnon, S., + , PROC Oct 97* 1646-1661
review of pers. commun. systs. *Li, V.O.K., + , PROC Sep 95* 1210-1243
satellite CDMA transm. for mobile and pers. commun. *De Gaudenzi, R., + , PROC Jan 96* 18-39
Phased array radar
1D opt. phased array technol., sens. appls. *McManamon, P.F., + , PROC Feb 96* 268-298
Phased arrays
1D opt. phased array technol., sens. appls. *McManamon, P.F., + , PROC Feb 96* 268-298
Phase measurement
corrections to "The fractional frequency stability of a 34-m-diameter beam waveguide antenna" (May 94 788-795). *Otoshi, T.Y., P PROC Aug 96* 1187
Phase shifters; cf. Optical phase shifters
Philosophical considerations
SIMNET, simulator networking, mil. training. *Miller, D.C., + , PROC Aug 95* 1114-1123
Photodetectors
GaN based devices and technol. *Mohammad, S.N., + , PROC Oct 95* 1306-1355
imaging laser radar transmitters in near/far IR. *Osche, G.R., + , PROC Feb 96* 103-125
Photovoltaic cell fabrication
Si, cryst. solar cells, low-cost indust. technols. *Szlufcik, J., + , PROC May 97* 711-730
Photovoltaic cell materials
Si, cryst. solar cells, low-cost indust. technols. *Szlufcik, J., + , PROC May 97* 711-730
Picture archiving and communication systems
radiologic image compression, review. *Wong, S., + , PROC Feb 95* 194-219
Piezoresistive devices
biosensor, micromachined device. *Baselt, D.R., + , PROC Apr 97* 672-680
Pipeline processing
asynchronous design methodologies, overview. *Hauck, S., PROC Jan 95* 69-93
Cyrix 6×86 μP. *McMahan, S.C., + , PROC Dec 95* 1664-1672
JAGUAR, pipelined VLSI archit. for JPEG image compression. *Kovac, M., + , PROC Feb 95* 247-258
QCA, quantum-dot cellular automata, pipelined archit. appl. *Lent, C.S., + , PROC Apr 97* 541-557
PLA; cf. Programmable logic arrays
Planning
distributed interactive simul., future technol. challenges. *Reddy, R., + , PROC Aug 95* 1188-1195
warfare modeling and simul., distributed interactive simul. *Davis, P.K., PROC Aug 95* 1138-1155
Planning; cf. Business planning; Communication system planning; Strategic planning
Plasma displays
cameras and display systs., rel., digital TV. *Hashimoto, Y., + , PROC Jul 95* 1032-1043
Pointing systems
laser satellite commun. network, vibr. effect and solns. *Arnon, S., + , PROC Oct 97* 1646-1661
Polarimetry; cf. Radar polarimetry
Portable radio communication
antenna arrays, channel requirement, appls. *Godara, L.C., PROC Jul 97* 1031-1060
batt.-powered pers. communicators, trends and limits. *Warwick, C.W., PROC Apr 95* 681-686
low-power RF ICs for portable commun., all-CMOS radio. *Abidi, A.A., PROC Apr 95* 544-569
Portable radio communication; cf. Land mobile radio...; Paging communication; Personal communication networks
Position control
postural sway, human bal. control, time-freq. spectral anal. *El-Jaroudi, A., + , PROC Sep 96* 1312-1318
Positron emission tomography
wavelets in biomedical appls. review. *Unser, M., + , PROC Apr 96* 626-638
Posture
postural sway, human bal. control, time-freq. spectral anal. *El-Jaroudi, A., + , PROC Sep 96* 1312-1318
Powdered magnetic materials
biosensor, micromachined device. *Baselt, D.R., + , PROC Apr 97* 672-680
Power control
Ka-band satellite links, open-loop uplink power control. *Dissanayake, A.W., PROC Jun 97* 959-969
Power electronics
batt.-powered portable computers, technol. trends. *Harris, E.P., + , PROC Apr 95* 636-658
Power electronics; cf. Power semiconductor devices
Power engineering
William S. Lee, career/contribs. *Brittain, J.E., PROC Mar 95* 490
Power flow analysis; cf. Load flow analysis
Power generation; cf. Generators
Power semiconductor devices
future challenges and directions for nitride materials and light emitters. *Akasaki, I., + , PROC Nov 97* 1750-1751
Power supplies; cf. Biomedical power supplies
Power system control
nonlin. large power syst. stabil. anal., taxonomy theory-based. *Venkatasubramanian, V., + , PROC Nov 95* 1530-1561
voltage instabil., mechanisms and control strategies. *Vu, K.T., + , PROC Nov 95* 1442-1455
Power system control; cf. Power system stability
Power system dynamic stability
nonlin. large power syst. stabil. anal., taxonomy theory-based. *Venkatasubramanian, V., + , PROC Nov 95* 1530-1561
voltage collapse modelling, bifurcation theory-based. *Chin-Woo Tan, + , PROC Nov 95* 1484-1496
Power system modeling
transient stabil., direct anal. methods. *Hsiao-Dong Chang, + , PROC Nov 95* 1497-1529
voltage stabil. anal., local bifurcation theory-based. *Kwatny, H.G., + , PROC Nov 95* 1456-1483
Power system modeling; cf. Load modeling
Power systems
William Le Roy Emmet, career/contribs. *Brittain, J.E., PROC Jul 96* 1053-1054
Power system security
transient stabil., direct anal. methods. *Hsiao-Dong Chang, + , PROC Nov 95* 1497-1529
Power system simulation
behavior anal. tools, nonlin. considerations. *Hiskens, I.A., PROC Nov 95* 1573-1587
transient stabil., direct anal. methods. *Hsiao-Dong Chang, + , PROC Nov 95* 1497-1529
voltage stabil. anal., local bifurcation theory-based. *Kwatny, H.G., + , PROC Nov 95* 1456-1483
Power system stability
Edith Clarke, career/contribs. *Brittain, J.E., PROC Jan 96* 90
multimachine power syst. structural stabil., nonlin. load effects. *Pai, M.A., + , PROC Nov 95* 1562-1572
nonlinear phenomena in power systems: theory and practical implications (special issue). *PROC Nov 95* 1439-1587
voltage instabil., mechanisms and control strategies. *Vu, K.T., + , PROC Nov 95* 1442-1455

voltage stabil. anal., local bifurcation theory-based. *Kwatny, H.G., + , PROC Nov 95* 1456-1483

Power system transient stability
direct anal. methods. *Hsiao-Dong Chang, + , PROC Nov 95* 1497-1529
nonlin. large power syst. stabil. anal., taxonomy theory-based. *Venkatasubramanian, V., + , PROC Nov 95* 1530-1561

Power transmission; cf. Load flow analysis

Prediction methods
motion estim. techs. for digital TV, review. *Dufaux, F., + , PROC Jun 95* 858-876
nonlin. vector predictor, neural net approach. *Rizvi, S.A., + , PROC Oct 96* 1513-1528

Prediction methods; cf. Forecasting

Predictive control
book review; Predictive Control: A Unified Approach (Soeterboek, R.; 1992). *Toumodge, S., PROC Aug 95* 1198-1199

Privacy
biometrics. *Woodward, J.D., PROC Sep 97* 1480-1492

Privacy; cf. Cryptography

Probability
Ka-band propag., three-site comparison of fade-duration meas. *Helmken, H., + , PROC Jun 97* 917-925
PAC learning fn. approx., feedforward sigmoidal nets. *Rao, N.S.V., + , PROC Oct 96* 1562-1569

Problem-solving
autonomous robots, adaptive neural control. *Schmajuk, N.A., PROC Oct 96* 1553-1561

Process control
book review; Process Control Engineering (Rao, M., and Qui, H.; 1993). *Zhou, M.C., PROC Nov 95* 1592-1593

Process control; cf. Industrial control; Process monitoring

Process monitoring
proc. machine monitoring sens., vibr. anal., time-freq. anal. *Atlas, L.E., + , PROC Sep 96* 1319-1329

Product development
design data mgt., CAD frameworks. *van den Hamer, P., + , PROC Jan 96* 42-56

Production control
book review; Manufacturing Systems Engineering (Gershwin, S.B.; 1994). *Meerkov, S.M., PROC Jul 96* 1051-1052

Production management
design data mgt., CAD frameworks. *van den Hamer, P., + , PROC Jan 96* 42-56

Production systems
book review; Heuristic Scheduling Systems with Applications to Production Systems and Project Management (Morton, T.E., and Pentico, D.W.; 1993). *Bard, J.F., PROC Feb 96* 324-325

Professional societies
IRE Proceedings 1913-1937, elec. and electronics engng. evoln. *Brittain, J.E., PROC Dec 96* 1747-1772
IRE proceedings, 1938-1962. *Brittain, J.E., PROC May 97* 762-797

Professional societies; cf. Engineering societies

Program compilers
CoWare hardware-software codesign tool for digital telecom systs. *Bolsens, I., + , PROC Mar 97* 391-418
embedded software design tools, real-time sig. proc. systs. *Goossens, G., + , PROC Mar 97* 436-454
embedded software in real-time sig. proc., telecom appl. *Paulin, P.G., + , PROC Mar 97* 419-435
μP, compiler technol. *Hwu, W.W., + , PROC Dec 95* 1625-1640

Programmable circuits
VLSI for digital HDTV. *Mlynek, D.J., + , PROC Jul 95* 1055-1070

Programmable logic arrays
electrooptic displays for opt. inform. proc. *Karim, M.A., + , PROC Jun 96* 814-827

Programming
computer design, prog. tech. influence. *Hopper, G.M., + , PROC Mar 97* 470-474
hardware/software codesign (special issue). *PROC Mar 97* 347-466
hardware/software codesign, special issue intro. *De Micheli, G., PROC Mar 97* 347-348
intro. to "Influence of programming techniques on the design of computers" (classic paper reprint, pp. 470-474). *Flynn, M.J., PROC Mar 97* 467-469
Stanford FLASH multiprocessor, hardware/software co-design. *Heinrich, M., + , PROC Mar 97* 455-466

Program processors; cf. Program compilers

Project management
book review; Heuristic Scheduling Systems with Applications to Production Systems and Project Management (Morton, T.E., and Pentico, D.W.; 1993). *Bard, J.F., PROC Feb 96* 324-325
book review; Project Management: Engineering, Technology, and Implementation (Shtub, A., etal.; 1994). *Klastorin, T.D., PROC Dec 95* 1513
book review; Project Management in Manufacturing and High Technology Management, 2nd edn. (Badiru, A.B.; 1996). *Pinto, J.K., PROC Nov 97* 1875

Prologs
advances in satellite CDMA transm. for mobile/personal communications. *O'Donnell, R., PROC Jan 96* 16-17
antennae. *Brittain, J.E., PROC Nov 96* 1615-1616
application of antenna arrays to mobile communications: beam-forming and direction-of-arrival considerations. *Litkourezos, G, PROC Aug 97* 1193-1194
applications of antenna arrays to mobile communications: performance improvement, feasibility, and system considerations. *Litkourezos, G., PROC Jul 97* 1029-1030
asynchronous design methodologies: an overview. *Caruthers, F., PROC Jan 95* 67-68
automatic on-line signature verification. *Esch, J., PROC Feb 97* 213-214
autonomous vehicles. *Esch, J., PROC Aug 96* 1145-1146
biometrics: privacy's foe or privacy's friend?. *Shen, W., + , PROC Sep 97* 1479
blind system identification. *O'Donnell, R., PROC Aug 97* 1308-1309
cct. techs. for reducing effects of op-amp imperfections; autozeroing, correlated double sampling, and chopper stabilization. *O'Donnell, R., PROC Nov 96* 1582-1583
comments on diffr. principles and limitations of RCS reduction techs. *O'Donnell, R., PROC Dec 96* 1828-1829
control of molecular motion. *Esch, J., PROC Jan 96* 6
convergence of telecomms. and computing: what are implications today?. *O'Donnell, R., PROC Aug 96* 1165-1166
dataflow proc. networks. *O'Donnell, R.A., PROC May 95* 771-772
detect. of sigs. in chaos. *Falk, H., PROC Jan 95* 94
discrete simul. of colored noise and stochastic procs. and $1/f^{alpha}$ power law noise generation. *Falk, H., PROC May 95* 800-801
distributed multimedia systems. *Falk, H., PROC Jul 97* 1061-1062
emerging gallium nitride base devices. *Self, K., PROC Oct 95* 1305
EM interaction of handset antennas and a human in personal communications. *O'Donnell, R., PROC Jan 95* 5-6
environ. representation using multiple abstraction levels. *Esch, J., PROC Nov 96* 1682-1683
evaluation of automated biometrics-based identification and verification systems. *Shen, W., + , PROC Sep 97* 1463
face recognition, eigenface, elastic matching, and neural nets. *Shen, W., + , PROC Sep 97* 1422
Fingerprint features: Statistical analysis and system performance estimates. *Shen, W., + , PROC Sep 97* 1389
flash memory cells; overview. *O'Donnell, R., PROC Aug 97* 1246-1247
human and machine recogn. of faces; survey. *Esch, J., PROC May 95* 704
hybrid syst. for 2D image recogn. *O'Donnell, R., PROC Nov 96* 1657-1658
hypermedia data modeling, coding, and semiotics. *Esch, J., PROC Jul 97* 1109-1110
identity-authentication system using fingerprints. *Shen, W., + , PROC Sep 97* 1364
iris recognition, emerging biometric technolology. *Shen, W., + , PROC Sep 97* 1347
knowledge-directed vision; control, learning, and integrat. *Falk, H., PROC Nov 96* 1623-1624
low-cost industrial technologies of crystalline silicon solar cells. *Self, K., PROC May 97* 709-710
managing design data: five dimensions of CAD frameworks, config. mgt./product data mgt. *Esch, J., PROC Jan 96* 40-41
modeling and ident. of parallel nonlin. systs.: structural class. and param. estim. methods. *Self, K., PROC Jan 95* 37-38
multirate analog-digital systems for signal processing and conversion. *Self, K., PROC Feb 97* 240-241
neural networks for stat. recogn. of continuous speech. *Falk, H., PROC May 95* 741
noise reduction filters for dyn. image seqs.: review. *Caruthers, F., PROC Sep 95* 1270-1271
optical components for WDM lightwave networks. *O'Donnell, R., PROC Aug 97* 1272-1273
perform. trends in high-end processors. *Esch, J., PROC Jan 95* 18-19
personal communication systems (PCS). *O'Donnell, R., PROC Sep 95* 1208-1209
principles and methods of testing finite state machines; survey. *Esch, J., PROC Aug 96* 1089
protocol pruning. *Falk, H., PROC Oct 95* 1356
quantum inform. proc.; cyptography, computation, and teleportation. *Esch, J., PROC Dec 96* 1717-1718
radar. *O'Donnell, R., PROC Dec 96* 1773-1774

+ Check author entry for coauthors

† Check author entry for subsequent corrections/comments

recent advances in theory and applications of scrambling techniques for lightwave transmission. *Falk, H., PROC Oct 95* 1397-1398
recognizing obj. fn. through reasoning about partial shape descriptions and dyn. phys. properties. *Caruthers, F., PROC Nov 96* 1638-1639
reengineering curriculum: design/anal. of new undergraduate elec./computer engng. degree at Carnegie Mellon Univ. *Falk, H., PROC Sep 95* 1244-1245
service disciplines for guaranteed performance service in packet-switching networks. *Esch, J., PROC Oct 95* 1373
smart structures (special section intro.). *Kersey, A.D., PROC Jan 96* 57-59
speaker recognition, tutorial. *Shen, W., + , PROC Sep 97* 1436
survey of heterog. computing: concepts and systs. *Falk, H., PROC Aug 96* 1124-1126
weak electromagnetic fields and cancer in the context of risk assessment. *Likourezos, G., PROC May 97* 731-732
wide area augmentation of GPS. *Self, K., PROC Aug 96* 1061-1062
wireless infrared communications. *Falk, H., PROC Feb 97* 263-264

PROM; cf. EPROM

Propagation; cf. Radio propagation

Propulsion; cf. Marine vehicle propulsion

Protocols
communications in the twenty-first century (special issue). *PROC Oct 97* 1519-1661
communications in the twenty-first century, special issue intro. *Cochrane, P., PROC Oct 97* 1519-1522
convergence of telecomms. and computing to networking models for integrated services and appls. *Decina, M., + , PROC Dec 97* 1887-1914
distributed interactive simul. environ. *Hofer, R.C., + , PROC Aug 95* 1124-1137
distributed interactive simul., networking technol. *Pullen, J.M., + , PROC Aug 95* 1156-1167
FSM testing, principles and methods, survey. *Lee, D., + , PROC Aug 96* 1090-1123
integrated services in Internet, state of art. *White, P.P., + , PROC Dec 97* 1934-1946
internetworking based on cell switch router - archit. and protocol review. *Katsube, Y., + , PROC Dec 97* 1998-2006
IP switching for scalable IP services. *Ahmed, H.M., + , PROC Dec 97* 1984-1997
multimedia commun. *Wolf, L.C., + , PROC Dec 97* 1915-1933
pruning. *Lee, D., + , PROC Oct 95* 1357-1372
self-organizing broadband transport networks. *Grover, W.D., PROC Oct 97* 1582-1611
SIMNET, simulator networking, mil. training. *Miller, D.C., + , PROC Aug 95* 1114-1123
tag switching archit. overview. *Rekhter, Y., + , PROC Dec 97* 1973-1983
testbed for twenty-first century. *Henning, I., + , PROC Oct 97* 1572-1581

Psychology
book review; Connectionism and Psychology (Quinlan, P.; 1991). *Kruschke, J.K., PROC Oct 95* 1431-1432

Publishing; cf. Copyright protection; IEEE publications

Pulse generation
cardiac pacing electrodes, pulse generator/lead perform. *Stokes, K., PROC Mar 96* 457-467

Pulse position modulation
IR wireless high-speed short-range digital commun. *Kahn, J.M., + , PROC Feb 97* 265-298

Q

Quadratic programming
SAR images, spatial resoln., fusion, data sets. *Costantini, M., + , PROC Jan 97* 139-146

Quadrature mirror filters
multirate analog-digital systs. for sig. proc./conversion. *Franca, J., + , PROC Feb 97* 242-262

Quantization
Grand Alliance syst. for US HDTV. *Challapali, K., + , PROC Feb 95* 158-174

Quantization; cf. Vector quantization

Quantum dots
QCA, quantum-dot cellular automata, pipelined archit. appl. *Lent, C.S., + , PROC Apr 97* 541-557

Quantum effect semiconductor devices
nanoelectronics, quantum-effect devices, fault tolerance, design. *Goser, K.F., + , PROC Apr 97* 558-573
nanoelectronic switching devices, mol., single-electron and quantum-effect devices. *Goldhaber-Gordon, D., + , PROC Apr 97* 521-540
nanostructure fab., electron beam techs. *Matsui, S., PROC Apr 97* 629-643
QCA, quantum-dot cellular automata, pipelined archit. appl. *Lent, C.S., + , PROC Apr 97* 541-557

Quantum effect semiconductor devices; cf. MODFETs; Quantum well devices

Quantum theory
inform. proc., cryptography/computation/teleportation. *Spiller, T.P., PROC Dec 96* 1719-1746

Quantum well devices
metalorganic chemical vapor deposition for optoelectronic devices. *Coleman, J.J., PROC Nov 97* 1715-1729

Quantum well lasers
molecular beam epitaxy technol. of III-V compound semiconds. for optoelectronic appls. *Cheng, K.-Y., PROC Nov 97* 1694-1714
semicond. laser, thirty-five year prospective. *Holonyak, N., Jr., PROC Nov 97* 1678-1693

Quantum wires
STM/AFM nano-oxid. proc., single-electron transistors, photoconductive switches, HEMT. *Matsumoto, K., PROC Apr 97* 612-628

Queuing analysis
packet-switching networks, service disciplines for guaranteed perform. *Hui Zhang, PROC Oct 95* 1374-1396
teletraffic engng. in broadband era. *Michiel, H., + , PROC Dec 97* 2007-2033

R

Radar; cf. CW radar; Doppler radar; Laser radar; Phased array radar; Secondary radar; Synthetic aperture radar

Radar applications
multitarget-multisensor air traffic surveillance, interact. multiple model estim. *Yeddanapudi, M., + , PROC Jan 97* 80-96
wartime develop. *Schneider, E.G., PROC Dec 96* 1775-1827

Radar applications; cf. Radar imaging; Radar measurements; Radar tracking

Radar clutter
radar detect. of sigs. in chaos, small target in sea clutter. *Haykin, S., + , PROC Jan 95* 95-122

Radar cross sections
corrections to "comments on diffraction principles and limitations of RCS reduction techniques" (Dec 96 1830-1851). *Ufimtsev, P.Y., PROC Mar 97* 475
stealth technol., RCS reduction, diffr. principles and limitations. *Ufimtsev, P.Y., PROC Dec 96* 1830-1851

Radar data processing
XTRS LADAR, model-based automatic target recogn. syst. *Verly, J.G., + , PROC Feb 96* 126-163

Radar detection
CO_2 range-Doppler imaging laser radar component technol. *Melngailis, I., + , PROC Feb 96* 227-267
sea clutter, radar sig. detect. in chaos. *Haykin, S., + , PROC Jan 95* 95-122

Radar equipment
corrections to "comments on diffraction principles and limitations of RCS reduction techniques" (Dec 96 1830-1851). *Ufimtsev, P.Y., PROC Mar 97* 475
stealth technol., RCS reduction, diffr. principles and limitations. *Ufimtsev, P.Y., PROC Dec 96* 1830-1851
wartime develop. *Schneider, E.G., PROC Dec 96* 1775-1827

Radar imaging
coherent laser radar in Europe, ground-based and airborne systs. *Vaughan, J.M., + , PROC Feb 96* 205-226
laser radar imaging sens. for robotic appls. *Carmer, D.C., + , PROC Feb 96* 299-320
near/far IR imaging laser radar transmitter technol. *Osche, G.R., + , PROC Feb 96* 103-125
SAR images, spatial resoln., fusion, data sets. *Costantini, M., + , PROC Jan 97* 139-146
XTRS LADAR, model-based automatic target recogn. syst. *Verly, J.G., + , PROC Feb 96* 126-163

Radar measurements
S-band polarimetric radar meas. appl., Ka-band atten. predict. *Beaver, J.D., + , PROC Jun 97* 893-909

Radar polarimetry
S-band polarimetric radar meas. appl., Ka-band atten. predict. *Beaver, J.D., + , PROC Jun 97* 893-909

Radar scattering
sig. anal., time-freq. distribs., sonar and radar echoes appl. *Gaunaurd, G.C., + , PROC Sep 96* 1231-1248

Radar scattering; cf. Radar cross sections

Radar signal analysis
sig. anal., time-freq. distribs., sonar and radar echoes appl. *Gaunaurd, G.C., + , PROC Sep 96* 1231-1248

Radar target recognition
multi-target pass. tracking, neural net optim. *Shams, S., PROC Oct 96* 1442-1457
Radar tracking
coherent laser radar in Europe, ground-based and airborne systs. *Vaughan, J.M., + , PROC Feb 96* 205-226
multitarget-multisensor air traffic surveillance, interact. multiple model estim. *Yeddanapudi, M., + , PROC Jan 97* 80-96
multi-target pass. tracking, neural net optim. *Shams, S., PROC Oct 96* 1442-1457
Radar transmitters
CO_2 range-Doppler imaging laser radar component technol. *Melngailis, I., + , PROC Feb 96* 227-267
imaging laser radar transmitters in near/far IR. *Osche, G.R., + , PROC Feb 96* 103-125
Radiation detectors; cf. Photodetectors
Radio astronomy
corrections to "Precision DSN radiometer systems: impact on microwave calibrations" (May 94 776-787). *Stelzried, C.T., + , PROC Aug 96* 1187
corrections to "The fractional frequency stability of a 34-m-diameter beam waveguide antenna" (May 94 788-795). *Otoshi, T.Y., P PROC Aug 96* 1187
Radio broadcasting
IRE Proceedings 1913-1937, elec. and electronics engng. evoln. *Brittain, J.E., PROC Dec 96* 1747-1772
Radio communication
communications in the twenty-first century (special issue). *PROC Oct 97* 1519-1661
Harold A. Wheeler, career/contribs. *Brittain, J.A., PROC Jan 97* 200-201
Harold T. Friis, career/contribs. *Brittain, J.E., PROC Dec 95* 1514
introduction to "Radio Telegraphy" (classic paper reprint, pp. 1526-1535). *Jabbari, B, PROC Oct 97* 1523-1525
intro. to classic paper by L. de Forest on develops. in telegraphy (classic paper reprint (pp. 327-336). *Delogne, P., PROC Feb 97* 323-326
overview of broadband access technols. *Gagnaire, M., PROC Dec 97* 1958-1972
radio telegraphy (reprinted from Proc. IRE, vol. 10, pp. 215-238, Aug. 1922). *Marconi, S.G., PROC Oct 97* 1526-1535
Raymond A. Heising, contribs. *Brittain, J.E., PROC Jun 95* 1003
wireless infrared communications, prolog. *Falk, H., PROC Feb 97* 263-264
Radio communication; cf. Digital radio; Indoor radio communication; Land mobile radio; Microwave radio communication; Millimeter wave radio communication; Mobile communication; Portable radio communication; Radio broadcasting; Satellite communication; Space vehicle communication; UHF radio communication; Wireless LAN
Radio communication equipment
comments on "The pure electron discharge and its applications in radio telegraphy and telephony" (classic paper reprint, pp. 1496-1508). *Birdsall, C.K., PROC Sep 97* 1493-1495
George W. Pierce, career/contribs. *Brittain, J.E., PROC Apr 97* 700-701
HT insulators, dielec. props. and radio appl. *Hills, S.M., PROC Feb 97* 314-322
intro. to classic paper by S.M. Hills on high-voltage insulators for radio commun. (classic paper reprint, pp. 314-322). *Nelson, J.K., PROC Feb 97* 311-313
pure electron discharge and its appls. in radio (reprinted from Proc. of the IRE, vol. 3, no. 3, pp. 261-293, Sept. 1915). *Langmuir, I., PROC Sep 97* 1496-1508
trans-Atlantic radio telephony, SSB prod. *Heising, R.A., PROC May 97* 752-761
Radio communication equipment; cf. Radio receivers; Radio transmitters; Transceivers
Radiometry; cf. Microwave radiometry
Radio propagation
corrections to "comments on diffraction principles and limitations of RCS reduction techniques" (Dec 96 1830-1851). *Ufimtsev, P.Y., PROC Mar 97* 475
Greenleaf W. Pickard, careers/contribs. *Brittain, J.E., PROC Oct 95* 1434
Ralph Bown, career/contribs. *Brittain, J.E., PROC Sep 97* 1511-1513
RCS reduction, diffr. principles and limitations. *Ufimtsev, P.Y., PROC Dec 96* 1830-1851
Radio propagation; cf. Land mobile radio propagation factors; Microwave radio propagation; Millimeter wave radio propagation
Radio propagation meteorological factors; cf. Microwave radio propagation meteorological factors; Millimeter wave radio propagation meteorological factors
Radio receivers
corrections to "Precision DSN radiometer systems: impact on microwave calibrations" (May 94 776-787). *Stelzried, C.T., + , PROC Aug 96* 1187
CoWare hardware-software codesign tool for digital telecom systs. *Bolsens, I., + , PROC Mar 97* 391-418
intro. to classic paper by Edwin H. Armstrong on audion receiver (classic paper reprint, pp. 685-699). *Cotanis, N., PROC Apr 97* 681-684
Lee de Forest, career/contribs. *Brittain, J.E., PROC Mar 97* 476-477
some recent develops. in audion receiver (reprinted from Proc. IRE, vol. 3, no. 9, pp. 215-247, Sept. 1915). *Armstrong, E.H., PROC Apr 97* 685-697
Radio spectrum management
John R. Carson, career/contribs. *Brittain, J.E., PROC Jun 96* 909-910
Radio spectrum management; cf. Land mobile radio spectrum management
Radio telephony
intro. to classic paper by R.A. Heising (classi paper reprint, pp. 752-761). *Messerschmitt, D.G., PROC May 97* 747-751
Radio transmitters
Federal Telegraph Company, commun. equipt. develop. *de Forest, L., PROC Feb 97* 327-336
Rain
ACTS propag. data at 20 and 27.5 GHz, fade slope anal. *Feil, J., + , PROC Jun 97* 926-935
ACTS propag. expt., atten. distrib. obs. and predict. model comparisons. *Crane, R.K., + , PROC Jun 97* 879-892
ACTS propag. expt. for Ka-band satellite commun. syst. design. *Crane, R.K., + , PROC Jun 97* 863-878
ACTS propag. expt., rain-rate distrib. obs. and prediction model comparisons. *Crane, R.K., + , PROC Jun 97* 946-958
cumulative fade distribs. and freq. scaling techs., 20 GHz from ACTS and 12 GHz from DSS. *Goldhirsh, J., + , PROC Jun 97* 910-916
Ka-band Earth-space propag. research in Japan. *Karasawa, Y., + , PROC Jun 97* 821-842
Ka-band propag., three-site comparison of fade-duration meas. *Helmken, H., + , PROC Jun 97* 917-925
Ka-band slant path propag., European research. *Arbesser-Rastburg, B.R., + , PROC Jun 97* 843-852
Ka-band VSATs, channel charactn. and modelling. *Alouini, M.-S., + , PROC Jun 97* 981-997
S-band polarimetric radar meas. appl., Ka-band atten. predict. *Beaver, J.D., + , PROC Jun 97* 893-909
three-site space-diversity expt., 20 GHz, ACTS. *Goldhirsh, J., + , PROC Jun 97* 970-980
Random-access communication; cf. Multiaccess communication
Random noise
CMOS op-amp imperfections reduction, autozeroing, correl. double sampling, chopper stabil. *Enz, C.C., + , PROC Nov 96* 1584-1614
colored noise and stochastic procs. and $1/f^{\alpha}$ power law noise generation, discrete simul. *Kasdin, N.J., PROC May 95* 802-827
Rayleigh-Ritz methods
skeletal muscle/cardiac vibrs., time-freq. anal. *Wood, J.C., + , PROC Sep 96* 1281-1294
Reactive power
power syst. voltage collapse modelling, bifurcation theory-based. *Chin-Woo Tan, + , PROC Nov 95* 1484-1496
Real time systems
colored noise and stochastic procs. and $1/f^{\alpha}$ power law noise generation, discrete simul. *Kasdin, N.J., PROC May 95* 802-827
embedded software design tools, real-time sig. proc. systs. *Goossens, G., + , PROC Mar 97* 436-454
embedded software in real-time sig. proc., telecom appl. *Paulin, P.G., + , PROC Mar 97* 419-435
portable video-on-demand syst. in wireless commun. *Meng, T.H., + , PROC Apr 95* 659-680
reactive real-time embedded syst. design, formal models. *Edwards, S., + , PROC Mar 97* 366-390
SIMNET, simulator networking, mil. training. *Miller, D.C., + , PROC Aug 95* 1114-1123
video real-time proc., P^{3}I parallel archit. *Colaitis, M.-J., + , PROC Jul 96* 1019-1037
Receivers; cf. Optical receivers; Radio receivers; TV receivers
Recording; cf. Disk recording; Magnetic recording; Video recording
Recurrent neural networks
dyn. neural net for vehicle idle speed control. *Puskorius, G.V., + , PROC Oct 96* 1407-1420
human brain NMR image anal. by neural net. *Gelenbe, E., + , PROC Oct 96* 1488-1496
low bit rate video compression by neural net. *Cramer, C., + , PROC Oct 96* 1529-1543
Recursive estimation
region-based video coding, math. morph. *Salembier, P., + , PROC Jun 95* 843-857
Recursive estimation; cf. Kalman filtering
Redundancy
motion estim. techs. for digital TV, review. *Dufaux, F., + , PROC Jun 95* 858-876

Reflection; cf. Electromagnetic reflection
Reflector antennas
corrections to "The fractional frequency stability of a 34-m-diameter beam waveguide antenna" (May 94 788-795). *Otoshi, T.Y., P PROC Aug 96* 1187
Reflector antennas; cf. Multireflector antennas
Regulators
book review; Optimal Control Theory for Infinite Dimensional Systems (Li, X., and Yong, J.; 1995). *Lenhart, S., PROC Feb 97* 338-339
Relaxation oscillators; cf. Flip-flops
Reliability; cf. Communication system reliability; Fault tolerance
Reliability theory
fuzzy logic, reliab. engng. appl. *Bowles, J.B., + , PROC Mar 95* 435-449
Remote sensing
groundwater flow, hydraulic cond., sig.-level fusion, multiresolution method. *Daniel, M.M., + , PROC Jan 97* 164-180
Research and development
Ka-band Earth-space propag. research in Japan. *Karasawa, Y., + , PROC Jun 97* 821-842
Ka-band slant path propag., European research. *Arbesser-Rastburg, B.R., + , PROC Jun 97* 843-852
Research and development management
book review; Managing Innovation and Entrepreneurship in Technology Based Firms (Martin, M.J.C.; 1994). *Pinto, J.K., PROC Nov 96* 1706-1707
book review; Mastering the Dynamics of Innovation: How Companies Can Seize Opportunities in the Face of Technological Change (Utterback, J.M.; 1994). *O'Neill, R.R., PROC Jun 95* 999
book review; Project Management in Manufacturing and High Technology Management, 2nd edn. (Badiru, A.B.; 1996). *Pinto, J.K., PROC Nov 97* 1875
book review; Strategic Technology Management (Betz, F.; 1993). *Gaynor, G.H., PROC Mar 96* 500-501
book review; Technology and Strategy: Conceptual Models and Diagnostics (Goodman, R.A., and Lawless, M.W.; 1994). *Pinto, J.K., PROC Nov 96* 1707-1708
Resistance measurement
intro. to classic paper by M.I. Pupin on antenna radiation resistance meas. (classic paper reprint, pp. 306-310). *Collin, R.E., PROC Feb 97* 301-305
Resonance
sig. anal., time-freq. distribs., sonar and radar echoes appl. *Gaunaurd, G.C., + , PROC Sep 96* 1231-1248
Resonant tunneling devices
nanoelectronic switching devices, mol., single-electron and quantum-effect devices. *Goldhaber-Gordon, D., + , PROC Apr 97* 521-540
Resonant tunneling diodes
Boolean logic, nanoelectronic archit., double-barrier reson. tunneling diode. *Roychowdhury, V.P., + , PROC Apr 97* 574-588
Resonators; cf. Laser resonators
Resource management
heterog. computing. *Ekmecic, I., + , PROC Aug 96* 1127-1144
heterog. servers network, service provision, user selection. *Olafsson, S., PROC Oct 97* 1556-1562
Reviews
antenna arrays appl. to mobile commun., beamforming and DOA aspects. *Godara, L.C., PROC Aug 97* 1195-1245
blind syst. ident. techs. *Abed-Meraim, K., + , PROC Aug 97* 1310-1322
distributed multimedia systs., tech. survey. *Li, V.O.K., + , PROC Jul 97* 1063-1108
ENIAC electronic computing cncts. *Schneck, P.B., PROC Jul 97* 1169-1171
flash memory cells. *Pavan, P., + , PROC Aug 97* 1248-1271
satellite commun. develop. *Wu, W.W., PROC Jun 97* 998-1010
Reviews; cf. Book reviews
Road vehicles
internal combustion engine, knock detect., mech. signature anal., time-freq. methods. *Samimy, B., + , PROC Sep 96* 1330-1343
Robots
autonomous robots, adaptive neural control. *Schmajuk, N.A., PROC Oct 96* 1553-1561
book review; Robotics and Remote Systems for Hazardous Environments (Jamshidi, M., and Eicker, P., Eds.; 1993). *Maciejewski, A.A., PROC Feb 93* 336-337
self-organizing map, props., engng. appls. *Kohonen, T., + , PROC Oct 96* 1358-1384
Robots; cf. Mobile robots
Robot sensing systems
data fusion (special issue). *PROC Jan 97* 3-183
Robot vision systems
laser radar imaging sens. for robotic appls. *Carmer, D.C., + , PROC Feb 96* 299-320
mobile robot, environ. representation, multiple abstraction levels. *Dudek, G.L., PROC Nov 96* 1684-1704
obj. fn. recogn., reasoning, partial shape model. *Stark, L., + , PROC Nov 96* 1640-1656
signals and systems (special section). *PROC Nov 96* 1579-1580, 1623-1704
Robustness
book review; Robust Control: Systems with Uncertain Physical Parameters (Ackermann, J., et al.; 1993). *Mansour, M., PROC Oct 96* 1572
Rotating machines; cf. Generators; Motors
Routing; cf. Communication system routing

S

Sampled-data filters; cf. Digital filters
Sampling methods
CMOS op-amp imperfections reduction, autozeroing, correl. double sampling, chopper stabil. *Enz, C.C., + , PROC Nov 96* 1584-1614
Satellite antennas
ACTS, antenna config. and for Ka-band propag. meas. *Bauer, R., PROC Jun 97* 853-862
Satellite communication
ACTS propag. data at 20 and 27.5 GHz, fade slope anal. *Feil, J., + , PROC Jun 97* 926-935
ACTS propag. expt., atten. distrib. obs. and predict. model comparisons. *Crane, R.K., + , PROC Jun 97* 879-892
ACTS propag. expt. for Ka-band satellite commun. syst. design. *Crane, R.K., + , PROC Jun 97* 863-878
ACTS propag. expt., rain-rate distrib. obs. and prediction model comparisons. *Crane, R.K., + , PROC Jun 97* 946-958
communications in the twenty-first century (special issue). *PROC Oct 97* 1519-1661
cumulative fade distribs. and freq. scaling techs., 20 GHz from ACTS and 12 GHz from DSS. *Goldhirsh, J., + , PROC Jun 97* 910-916
develop. of satellite commun. *Wu, W.W., PROC Jun 97* 998-1010
Ka-band Earth-satellite propag. data, syst. requirements. *Rogers, D.V., + , PROC Jun 97* 810-820
Ka-band Earth-space propag. research in Japan. *Karasawa, Y., + , PROC Jun 97* 821-842
Ka-band propagation effects on earth-satellite links (special issue). *PROC Jun 97* 807-1019
Ka-band propagation effects on earth-satellite links, special issue intro. *Davarian, F., + , PROC Jun 97* 807-809
Ka-band propag. meas., ACTS. *Bauer, R., PROC Jun 97* 853-862
Ka-band propag., three-site comparison of fade-duration meas. *Helmken, H., + , PROC Jun 97* 917-925
Ka-band satellite links, open-loop uplink power control. *Dissanayake, A.W., PROC Jun 97* 959-969
Ka-band scintillations, meas. and model predictions. *Mayer, C.E., + , PROC Jun 97* 936-945
Ka-band slant path propag., European research. *Arbesser-Rastburg, B.R., + , PROC Jun 97* 843-852
S-band polarimetric radar meas. appl., Ka-band atten. predict. *Beaver, J.D., + , PROC Jun 97* 893-909
three-site space-diversity expt., 20 GHz, ACTS. *Goldhirsh, J., + , PROC Jun 97* 970-980
transoceanic commun. of pass. satellites. *Pierce, J.R., + , PROC Jun 97* 1011-1019
Satellite communication earth terminals
Ka-band VSATs, channel charactn. and modelling. *Alouini, M.-S., + , PROC Jun 97* 981-997
Satellite mobile communication
antenna arrays, channel requirement, appls. *Godara, L.C., PROC Jul 97* 1031-1060
CDMA transm. for mobile and pers. commun. *De Gaudenzi, R., + , PROC Jan 96* 18-39
laser satellite commun. network, vibr. effect and solns. *Arnon, S., + , PROC Oct 97* 1646-1661
Satellite navigation systems; cf. Global Positioning System
Satellites
ACTS, antenna config. and for Ka-band propag. meas. *Bauer, R., PROC Jun 97* 853-862
Satellite tracking
laser satellite commun. network, vibr. effect and solns. *Arnon, S., + , PROC Oct 97* 1646-1661
Scattering; cf. Acoustic scattering; Radar scattering
Scheduling
Heuristic Scheduling Systems with Applications to Production Systems and Project Management (Morton, T.E., and Pentico, D.W.; 1993). *Bard, J.F., PROC Feb 96* 324-325

Scientific visualization
lasers and optics in health care. *Deutsch, T.F., PROC Nov 97* 1797-1816
Secondary radar
multitarget-multisensor air traffic surveillance, interact. multiple model estim. *Yeddanapudi, M., + , PROC Jan 97* 80-96
Security; cf. Access control; Power system security
Self-organizing feature maps
fingerprint class./ident. by SOFM neural net. *Halici, U., + , PROC Oct 96* 1497-1512
image compression, neural network approaches. *Dony, R.D., + , PROC Feb 95* 288-303
multi-target pass. tracking, neural net optim. *Shams, S., PROC Oct 96* 1442-1457
nanoelectronics, quantum-effect devices, fault tolerance, design. *Goser, K.F., + , PROC Apr 97* 558-573
props., engng. appls. *Kohonen, T., + , PROC Oct 96* 1358-1384
Semiconductor device doping
GaN based devices and technol. *Mohammad, S.N., + , PROC Oct 95* 1306-1355
metalorganic chemical vapor deposition for optoelectronic devices. *Coleman, J.J., PROC Nov 97* 1715-1729
Semiconductor device fabrication
nanometer-scale science and technology (special issue). *PROC Apr 97* 483-680
nanometer-scale science and technology, special issue intro. *Marrian, C.R.K., PROC Apr 97* 483-485
optoelectronics technology (special issue). *PROC Nov 97* 1671-1874
optoelectronics technology, special issue intro. *Lo, Y.-H., PROC Nov 97* 1671-1672
vertical-cavity surface emitting lasers, moving from research to mfg. *Choquette, K.D., + , PROC Nov 97* 1730-1739
Semiconductor device fabrication; cf. Integrated circuit fabrication; Photovoltaic cell fabrication; Semiconductor device doping
Semiconductor device modeling; cf. Integrated circuit modeling
Semiconductor device noise; cf. Integrated circuit noise
Semiconductor device packaging; cf. Integrated circuit packaging
Semiconductor device reliability
implantable pacemakers, size reduction/reliab. improvement. *Sanders, R.S., + , PROC Mar 96* 480-486
Semiconductor device reliability; cf. Integrated circuit reliability
Semiconductor devices
optoelectronics technology (special issue). *PROC Nov 97* 1671-1874
optoelectronics technology, special issue intro. *Lo, Y.-H., PROC Nov 97* 1671-1672
Semiconductor devices; cf. Piezoresistive devices; Power semiconductor devices; Quantum effect semiconductor devices; Semiconductor lasers; Transistors
Semiconductor diodes; cf. Light-emitting diodes
Semiconductor electronics industry; cf. Electronics industry
Semiconductor growth
gallium-nitride-based materials for blue to ultraviolet optoelectronics devices. *DenBaars, S.P., PROC Nov 97* 1740-1749
metalorganic chemical vapor deposition for optoelectronic devices. *Coleman, J.J., PROC Nov 97* 1715-1729
molecular beam epitaxy technol. of III-V compound semiconds. for optoelectronic appls. *Cheng, K.-Y., PROC Nov 97* 1694-1714
Semiconductor lasers
future challenges and directions for nitride materials and light emitters. *Akasaki, I., + , PROC Nov 97* 1750-1751
GaN based devices and technol. *Mohammad, S.N., + , PROC Oct 95* 1306-1355
molecular beam epitaxy technol. of III-V compound semiconds. for optoelectronic appls. *Cheng, K.-Y., PROC Nov 97* 1694-1714
optoelectronics technology (special issue). *PROC Nov 97* 1671-1874
optoelectronics technology, special issue intro. *Lo, Y.-H., PROC Nov 97* 1671-1672
semicond. laser, thirty-five year prospective. *Holonyak, N., Jr., PROC Nov 97* 1678-1693
vertical-cavity surface emitting lasers, moving from research to mfg. *Choquette, K.D., + , PROC Nov 97* 1730-1739
Semiconductor lasers; cf. Quantum well lasers
Semiconductor materials
future challenges and directions for nitride materials and light emitters. *Akasaki, I., + , PROC Nov 97* 1750-1751
Semiconductor materials; cf. Photovoltaic cell materials
Semiconductor memories
flash memory cells, review. *Pavan, P., + , PROC Aug 97* 1248-1271
Sensitivity; cf. Robustness
Sensors; cf. Multisensor systems
Sequences
digital lightwave transm., scrambling techs. *Byeong Gi Lee, + , PROC Oct 95* 1399-1428
FSM testing, principles and methods, survey. *Lee, D., + , PROC Aug 96* 1090-1123
Sequential logic circuits
Boolean logic, nanoelectronic archit., double-barrier reson. tunneling diode. *Raychowdhury, V.P., + , PROC Apr 97* 574-588
Sequential logic circuit testing
FSM testing, principles and methods, survey. *Lee, D., + , PROC Aug 96* 1090-1123
Set theory
book review; Qualitative Theory of Dynamical Systems: The Role of Stability Preserving Mappings (Michel, A.N., and Wang, K.; 1995). *Sandberg, I.W., PROC Jan 97* 198-199
Shape measurement; cf. Image shape analysis
Signal analysis
internal combustion engine, knock detect., mech. signature anal., time-freq. methods. *Samimy, B., + , PROC Sep 96* 1330-1343
time-frequency analysis (special issue). *PROC Sep 96* 1195-1343
wavelets and time-freq. anal. *Hess-Nielsen, N., + , PROC Apr 96* 523-540
Signal analysis; cf. Acoustic signal analysis; Biomedical signal analysis; Radar signal analysis; Spectral analysis
Signal design
musical sigs., time-freq. anal. *Pielemeier, W.J., + , PROC Sep 96* 1216-1230
Signal detection
internal combustion engine, knock detect., mech. signature anal., time-freq. methods. *Samimy, B., + , PROC Sep 96* 1330-1343
Signal detection; cf. Adaptive signal detection; Biomedical signal detection; Distributed detection; Radar detection
Signal estimation; cf. Estimation
Signal flow graphs
asynchronous design methodologies, overview. *Hauck, S., PROC Jan 95* 69-93
Signal generators; cf. Oscillators; Pulse generation
Signal processing
blind syst. ident. techs., review. *Abed-Meraim, K., + , PROC Aug 97* 1310-1322
book review; Handbook for Digital Signal Processing (Mitra, S.K., and Kaiser, J.F., Eds.; 1993). *Shenoi, B.A., PROC Aug 95* 1199-1200
book review; Neural Networks for Optimization and Signal Processing (Cichocki, A., and Unbehauen, R.; 1993). *Swiniarski, R.W., PROC Jul 95* 1106
book review; Neural Networks for Signal Processing (Kosko, B., Ed.; 1992). *Williams, R.J., PROC Oct 95* 1432-1433
corrections to "Emerging applications of multirate signal processing and wavelets in digital communications" (Apr 96 586-603). *Wornell, G.W., PROC Aug 96* 1187-1188
dataflow proc. networks. *Lee, E.A., + , PROC May 95* 773-801
digital commun., multirate sig. proc. and wavelets appls. *Wornell, G.W., PROC Apr 96* 586-603
embedded software design tools, real-time sig. proc. systs. *Goossens, G., + , PROC Mar 97* 436-454
embedded software in real-time sig. proc., telecom appl. *Paulin, P.G., + , PROC Mar 97* 419-435
HDTV digital systs., stds., proc. and coding. *Ninomiya, Y., PROC Jul 95* 1086-1093
multirate analog-digital systems for signal processing and conversion, prolog. *Self, K., PROC Feb 97* 240-241
optical information processing, part 2: applications - nonimage signal processing (special issue). *PROC Jun 96* 811-905
wavelet research, future directions. *Sweldens, W., PROC Apr 96* 680-685
wavelets, subband coding, and best bases. *Ramchandran, K., + , PROC Apr 96* 541-560
Signal processing; cf. Adaptive signal processing; Array signal processing; Biomedical signal processing; Estimation; Filtering; Image processing; Optical signal processing; Signal sampling; Speech processing; Video signal processing
Signal reconstruction
brain functional activity localization, EEG time-freq. anal. *Mingui Sun, + , PROC Sep 96* 1302-1311
Signal reconstruction; cf. Image reconstruction
Signal representations
acoustic sigs. charact., continuous lin. time-freq. representation. *Guillemain, P., + , PROC Apr 96* 561-585
time-freq. distribs., sonar and radar echoes appl. *Gaunaurd, G.C., + , PROC Sep 96* 1231-1248
wavelets, math. background. *Cohen, A., + , PROC Apr 96* 514-522
wavelets (special issue). *PROC Apr 96* 507-685
Signal representations; cf. Image representations
Signal resolution
reduced interf. distribs., biological appls./interps. *Williams, W.J., PROC Sep 96* 1264-1280
wavelets for computer vision research. *Mallat, S., PROC Apr 96* 604-614

wavelets, math. background. *Cohen, A., + , PROC Apr 96* 514-522
Signal resolution; cf. Image resolution
Signal restoration; cf. Image restoration
Signal sampling
multirate analog-digital systs. for sig. proc./conversion. *Franca, J., + , PROC Feb 97* 242-262
wavelets, math. background. *Cohen, A., + , PROC Apr 96* 514-522
Signal sampling; cf. Image sampling
Silicon
cryst. solar cells, low-cost indust. technols. *Szlufcik, J., + , PROC May 97* 711-730
scaled submicron ultra-low power CMOS technol. *Stork, J.M.C., PROC Apr 95* 607-618
Silicon on insulator technology
CMOS scaling for high perform. and low power, next decade. *Davari, B., + , PROC Apr 95* 595-606
CMOS scaling into nanometer regime, fund. phys. effects, practicality. *Yuan Taur, + , PROC Apr 97* 486-504
CMOS technol. challenges for integrat. near and below 0.1 μm design rule. *Asai, S., + , PROC Apr 97* 505-520
Si scaled submicron ultra-low power CMOS technol. *Stork, J.M.C., PROC Apr 95* 607-618
Simulation
correction to "Wavelets in computer graphics" (Apr 96 615-625). *Schroder, P., PROC Aug 96* 1188
distributed interactive simulation (special issue). *PROC Aug 95* 1111-1195
distributed interactive simul., future technol. challenges. *Reddy, R., + , PROC Aug 95* 1188-1195
distributed interactive simul., networking technol. *Pullen, J.M., + , PROC Aug 95* 1156-1167
distributed interactive simul., nondefense training/education appls. *Fitzsimmons, E.A., + , PROC Aug 95* 1179-1187
warfare modeling and simul., distributed interactive simul. *Davis, P.K., PROC Aug 95* 1138-1155
wavelets in computer graphics. *Schroder, P., PROC Apr 96* 615-625
Simulation; cf. Power system simulation
Simulation software
Defense Department, distributed interactive simul. technol. appl. *Shiflett, J.E., + , PROC Aug 95* 1168-1178
distributed interactive simul. environ. *Hofer, R.C., + , PROC Aug 95* 1124-1137
SIMNET, simulator networking, mil. training. *Miller, D.C., + , PROC Aug 95* 1114-1123
Sleep
brain functional activity localization, EEG time-freq. anal. *Mingui Sun, + , PROC Sep 96* 1302-1311
Social factors
book review; The World in 2020 (McRae, H.; 1994). *Dorf, R.C., PROC Jan 96* 88-89
book review; World Class (Kanter, R.M.; 1995). *Dorf, R.C., PROC Jul 96* 1050-1051
present and future service demand, dyn. modeling. *Lyons, M.H., + , PROC Oct 97* 1544-1555
Social factors; cf. Technology social factors
Software; cf. Communication system software; Database management systems; Simulation software
Software development management
book review; Software Quality Management - A Pro-active Approach (Brinkworth, J.W.O.; 1992). *Freuhauf, K., PROC Mar 95* 488-489
Software engineering
Defense Department, distributed interactive simul. technol. appl. *Shiflett, J.E., + , PROC Aug 95* 1168-1178
hardware/software co-design. *De Michell, G., + , PROC Mar 97* 349-365
modular massively parallel computing approach, image-related proc. *Krikelis, A., + , PROC Jul 96* 988-1004
SIMNET, simulator networking, mil. training. *Miller, D.C., + , PROC Aug 95* 1114-1123
Software engineering; cf. Computer aided software engineering; Software requirements and specifications
Software management; cf. Software development management
Software performance
embedded software in real-time sig. proc., telecom appl. *Paulin, P.G., + , PROC Mar 97* 419-435
Software quality
book review; Software Quality Management - A Pro-active Approach (Brinkworth, J.W.O.; 1992). *Freuhauf, K., PROC Mar 95* 488-489
Software requirements and specifications
CoWare hardware-software codesign tool for digital telecom systs. *Bolsens, I., + , PROC Mar 97* 391-418
reactive real-time embedded syst. design, formal models. *Edwards, S., + , PROC Mar 97* 366-390
Software standards
distributed interactive simul. environ. *Hofer, R.C., + , PROC Aug 95* 1124-1137
Software tools
embedded software design tools, real-time sig. proc. systs. *Goossens, G., + , PROC Mar 97* 436-454
embedded software in real-time sig. proc., telecom appl. *Paulin, P.G., + , PROC Mar 97* 419-435
Solar radiation
Greenleaf W. Pickard, careers/contribs. *Brittain, J.E., PROC Oct 95* 1434
Solid lasers; cf. Semiconductor lasers
Sonar scattering
sig. anal., time-freq. distribs., sonar and radar echoes appl. *Gaunaurd, G.C., + , PROC Sep 96* 1231-1248
Sonar signal analysis
sig. anal., time-freq. distribs., sonar and radar echoes appl. *Gaunaurd, G.C., + , PROC Sep 96* 1231-1248
SONET
scrambling techs. for dig. lightwave transm. *Byeong Gi Lee, + , PROC Oct 95* 1399-1428
self-organizing broadband transport networks. *Grover, W.D., PROC Oct 97* 1582-1611
Source coding
advanced TV systs. for terrestrial broadcasting, problems and solns. *Schreiber, W.F., PROC Jun 95* 958-981
book review; Universal Compression and Retrieval (Krichevsky, R.; 1994). *Csiszar, I., PROC Jun 95* 1000-1002
digital audio coding for visual commun. *Noll, P., PROC Jun 95* 925-943
semiotic paradigm for hypermedia data and coding models. *Gonzalez, R., PROC Jul 97* 1111-1140
Source coding; cf. Cryptography; Image coding; Transform coding
Space vehicle communication
corrections to "Precision DSN radiometer systems: impact on microwave calibrations" (May 94 776-787). *Stelzried, C.T., + , PROC Aug 96* 1187
Spatial data structures
sens. fusion automation, database support. *Antony, R.T., PROC Jan 97* 39-53
Spatial filters
modified sign digit no. representation, opt. computing/interconnects. *Yatagai, T., + , PROC Jun 96* 828-852
opt. inform. proc. and beyond, review. *Ichioka, Y., + , PROC May 96* 694-719
opt. pattern recogn. archits./techs. *Yu, F.T.S., + , PROC May 96* 733-752
wavelet proc. and optics. *Yao Li, + , PROC May 96* 720-732
Spatial light modulators
electrooptic displays for opt. inform. proc. *Karim, M.A., + , PROC Jun 96* 814-827
opt. inform. proc. and beyond, review. *Ichioka, Y., + , PROC May 96* 694-719
pattern recogn. archits./techs. *Yu, F.T.S., + , PROC May 96* 733-752
Speaker recognition
automated biometrics (special issue). *PROC Sep 97* 1343-1492
automated biometrics, special issue intro. *Shen, W., + , PROC Sep 97* 1343-1347
automatic speaker-recogn. systs. *Campbell, J.P., Jr., PROC Sep 97* 1437-1462
Special issues and sections
advances in image and video compression (special issue). *PROC Feb 95* 135-335
automated biometrics (special issue). *PROC Sep 97* 1343-1492
automated biometrics, special issue intro. *Shen, W., + , PROC Sep 97* 1343-1347
communications in the twenty-first century (special issue). *PROC Oct 97* 1519-1661
communications in the twenty-first century, special issue intro. *Cochrane, P., PROC Oct 97* 1519-1522
data fusion (special issue). *PROC Jan 97* 3-183
data fusion, special issue intro. *Varshney, P.K., PROC Jan 97* 3-5
digital television, part 2: hardware and applications (special issue). *PROC Jul 95* 1007-1105
digital television, part I: enabling technologies (special issue). *PROC Jun 95* 831-996
distributed interactive simulation (special issue). *PROC Aug 95* 1111-1195
electrical therapy of cardiac arrhythmias (special issue). *PROC Mar 96* 331-499
engineering applications of artificial neural networks (special issue). *PROC Oct 96* 1355-1569
engng. appls. of fuzzy logic (special issue). *PROC Mar 95* 343-483
global information infrastructure (special issue). *PROC Dec 97* 1883-2051
global information infrastructure, special issue intro. *Goode, B., PROC Dec 97* 1883-1886
hardware/software codesign (special issue). *PROC Mar 97* 347-466

hardware/software codesign, special issue intro. *De Micheli, G., PROC Mar 97* 347-348
Ka-band propagation effects on earth-satellite links (special issue. *PROC Jun 97* 807-1019
Ka-band propagation effects on earth-satellite links, special issue intro. *Davarian, F., + , PROC Jun 97* 807-809
laser radar (special issue). *PROC Feb 96* 99-320
low-power electronics (special issue). *PROC Apr 95* 495-693
microprocessors (special issue). *PROC Dec 95* 1439-1512
nanometer-scale science and technology (special issue). *PROC Apr 97* 483-680
nanometer-scale science and technology, special issue intro. *Marrian, C.R.K., PROC Apr 97* 483-485
nonlinear phenomena in power systems: theory and practical implications (special issue). *PROC Nov 95* 1439-1587
optical information processing, part 1: image processing and vision (special issue). *PROC May 96* 691-798
optical information processing, part 2: applications - nonimage signal processing (special issue). *PROC Jun 96* 811-905
optoelectronics technology (special issue). *PROC Nov 97* 1671-1874
optoelectronics technology, special issue intro. *Lo, Y.-H., PROC Nov 97* 1671-1672
parallel architectures for image processing (special issue). *PROC Jul 96* 915-1049
signals and systems (special section). *PROC Nov 96* 1579-1580, 1623-1704
smart structures (special section). *PROC Jan 96* 57-86
time-frequency analysis (special issue). *PROC Sep 96* 1195-1343
wavelets (special issue). *PROC Apr 96* 507-685

Speckle
coherent inform. proc., speckle reduction. *Iwai, T., + , PROC May 96* 765-781

Spectral analysis
acoustic sigs. charact., continuous lin. time-freq. representation. *Guillemain, P., + , PROC Apr 96* 561-585
book review; Engineering Applications of Correlation and Spectral Analysis (Bendat, J.S., and Piersol, A.G.; 1993). *Chen, T.-H., PROC Jan 95* 124
postural sway, human bal. control, time-freq. spectral anal. *El-Jaroudi, A., + , PROC Sep 96* 1312-1318

Spectral analysis; cf. Maximum entropy methods

Spectrum management; cf. Radio spectrum management

Speech analysis
automatic speech recogn., time-freq. anal. and auditory modeling. *Pitton, J.W., + , PROC Sep 96* 1199-1215
reduced interf. distribs., biological appls./interps. *Williams, W.J., PROC Sep 96* 1264-1280

Speech coding
automatic speech recogn., time-freq. anal. and auditory modeling. *Pitton, J.W., + , PROC Sep 96* 1199-1215
digital audio coding for visual commun. *Noll, P., PROC Jun 95* 925-943

Speech communication
automatic speech recogn., time-freq. anal. and auditory modeling. *Pitton, J.W., + , PROC Sep 96* 1199-1215

Speech communication; cf. ISDN; Integrated voice-data communication

Speech processing
blind syst. ident. techs., review. *Abed-Meraim, K., + , PROC Aug 97* 1310-1322

Speech recognition
ANN for stat. recogn. of continuous speech. *Morgan, N., + , PROC May 95* 742-772
automatic speech recogn., time-freq. anal. and auditory modeling. *Pitton, J.W., + , PROC Sep 96* 1199-1215

Spheres
air-filled elastic shells, acoustical scatt., structural excitations anal. *Dragonette, L.R., + , PROC Sep 96* 1249-1263

Spread spectrum communication
advanced TV syst. for terrestrial broadcasting, problems and solns. *Schreiber, W.F., PROC Jun 95* 958-981
corrections to "Emerging applications of multirate signal processing and wavelets in digital communications" (Apr 96 586-603). *Wornell, G.W., PROC Aug 96* 1187-1188
CoWare hardware-software codesign tool for digital telecom syst. *Bolsens, I., + , PROC Mar 97* 391-418
digital commun., multirate sig. proc. and wavelets appls. *Wornell, G.W., PROC Apr 96* 586-603
GPS wide area augmentation for aircraft navig. *Enge, P., + , PROC Aug 96* 1063-1088
low-power RF ICs for portable commun., all-CMOS radio. *Abidi, A.A., PROC Apr 95* 544-569
satellite CDMA transm. for mobile and pers. commun. *De Gaudenzi, R., + , PROC Jan 96* 18-39

SRAM chips
low-power RAM cct. technol. trends. *Itoh, K., + , PROC Apr 95* 524-543

Stability
book review; Stability Theory (Parks, P.C., and Hahn, V.; 1993). *Elliott, D.L., PROC May 96* 799-800

Stability; cf. Circuit stability; Frequency stability; Laser stability; Lyapunov methods; Power system stability; Robustness

Standardization
digital video coding stds., video commun. role. *Schafer, R., + , PROC Jun 95* 907-924
wireless commun. in twenty-first century. *Shafi, M., + , PROC Oct 97* 1622-1638

Standards
distributed interactive simul., nondefense training/education appls. *Fitzsimmons, E.A., + , PROC Aug 95* 1179-1187

Standards; cf. CCITT; Communication standards; IEEE standards; ISO; Software standards

State estimation
mobile robot navig., sens. fusion, self-location techs. *Kam, M., + , PROC Jan 97* 110-119
multitarget-multisensor air traffic surveillance, interact. multiple model estim. *Yeddanapudi, M., + , PROC Jan 97* 80-96

State estimation; cf. Kalman filtering

State feedback
book review; Loop Transfer Recovery: Analysis and Design (Saberti, A., et al.; 1993. *Stoustrup, J., PROC Feb 97* 337-338

State space methods
nonlin. large power syst. stabil. anal., taxonomy theory-based. *Venkatasubramanian, V., + , PROC Nov 95* 1530-1561

Statistics
ACTS propag. data at 20 and 27.5 GHz, fade slope anal. *Feil, J., + , PROC Jun 97* 926-935
ACTS propag. expt., atten. distrib. obs. and predict. model comparisons. *Crane, R.K., + , PROC Jun 97* 879-892
ACTS propag. expt. for Ka-band satellite commun. syst. design. *Crane, R.K., + , PROC Jun 97* 863-878
ACTS propag. expt., rain-rate distrib. obs. and prediction model comparisons. *Crane, R.K., + , PROC Jun 97* 946-958
automatic speech recogn., time-freq. anal. and auditory modeling. *Pitton, J.W., + , PROC Sep 96* 1199-1215
biometric authentication, fingerprint features, syst. perform. estim. *Roddy, A.R., + , PROC Sep 97* 1390-1421
cumulative fade distribs. and freq. scaling techs., 20 GHz from ACTS and 12 GHz from DSS. *Goldhirsh, J., + , PROC Jun 97* 910-916
eval. of automated biometrics-based ident. systs. *Weicheng Shen, + , PROC Sep 97* 1464-1478
Ka-band propag., three-site comparison of fade-duration meas. *Helmken H., + , PROC Jun 97* 917-925
Ka-band scintillations, meas. and model predictions. *Mayer, C.E., + , PROC Jun 97* 936-945
S-band polarimetric radar meas. appl., Ka-band atten. predict. *Beaver, J.D., + , PROC Jun 97* 893-909
teletraffic engng. in broadband era. *Michiel, H., + , PROC Dec 97* 2007-2033

Stereo vision
3D TV research, present status. *Motoki, T., + , PROC Jul 95* 1009-1021
virtual reality, vision/motion research activities. *Ohzu, H., + , PROC May 96* 782-798

Stochastic processes
colored noise and stochastic procs. and $1/f^{\alpha}$ power law noise generation, discrete simul. *Kasdin, N.J., PROC May 95* 802-827
distributed detect. with multiple sens., review. *Blum, R.S., + , PROC Jan 97* 64-79

Stochastic processes; cf. Markov processes; Queuing analysis; Time series

Stochastic systems
book review; Stochastic Systems for Engineers: Modelling, Estimation and Control (Borrie, J.A.; 1992). *Toumodge, S., PROC Apr 95* 695

Storage; cf. Memories

Storage batteries; cf. Batteries

Strain measuremeat
civ. engng. smart structs., distrib. fiber optic technols. *Culshaw, B., + , PROC Jan 96* 78-86

Stranded conductors
vert. wire antennas, develop. *Pickard, G.W., PROC Nov 96* 1617-1622

Strategic planning
testbed for twenty-first century. *Henning, I., + , PROC Oct 97* 1572-1581

Structural engineering
smart struct., distributed fiber optic technols. *Culshaw, B., + , PROC Jan 96* 78-86

Subcarrier multiplexing
IR wireless high-speed short-range digital commun. *Kahn, J.M., + , PROC Feb 97* 265-298

Submillimeter wave lasers
imaging laser radar transmitters in near/far IR. *Osche, G.R., + , PROC Feb 96* 103-125
Subscriber loops
interactive TV, residential consumer video service. *Blahut, D.E., + , PROC Jul 95* 1071-1085
overview of broadband access technols. *Gagnaire, M., PROC Dec 97* 1958-1972
telephone loop plant, technol./appls. *Lin, D.W., + , PROC Feb 95* 175-193
Surface acoustic wave devices
Bragg cell Integrated acoustooptic/magnetooptic modulator devices for opt. inform. proc. *Tsai, C.S., PROC Jun 96* 853-869
Surface acoustic wave signal processing
Bragg cell Integrated acoustooptic/magnetooptic modulator devices for opt. inform. proc. *Tsai, C.S., PROC Jun 96* 853-869
Surface acoustic wave waveguides
Bragg cell Integrated acoustooptic/magnetooptic modulator devices for opt. inform. proc. *Tsai, C.S., PROC Jun 96* 853-869
Surface emitting lasers
molecular beam epitaxy technol. of III-V compound semiconds. for optoelectronic appls. *Cheng, K.-Y., PROC Nov 97* 1694-1714
semicond. laser, thirty-five year prospective. *Holonyak, N., Jr., PROC Nov 97* 1678-1693
vertical-cavity surface emitting lasers, moving from research to mfg. *Choquette, K.D., + , PROC Nov 97* 1730-1739
Surface treatment; cf. Etching
Surgery
lasers and optics in health care. *Deutsch, T.F., PROC Nov 97* 1797-1816
Surveillance
distributed fusion archits. and algms. for target tracking. *Liggins, M.E., II, + , PROC Jan 97* 97-109
multi-target pass. tracking, neural net optim. *Shams, S., PROC Oct 96* 1442-1457
Switches; cf. Light triggered switches; Magnetic switches; Optical switches
Synchronization; cf. Frame synchronization
Synchronous digital hierarchy
scrambling techs. for dig. lightwave transm. *Byeong Gi Lee, + , PROC Oct 95* 1399-1428
self-organizing broadband transport networks. *Grover, W.D., PROC Oct 97* 1582-1611
Synthetic aperture imaging
multisensor imagery positioning for target recogn. and exploitation. *Chellappa, R., + , PROC Jan 97* 120-138
SAR images, spatial resoln., fusion, data sets. *Costantini, M., + , PROC Jan 97* 139-146
Synthetic aperture radar
images, spatial resoln., fusion, data sets. *Costantini, M., + , PROC Jan 97* 139-146
multisensor imagery positioning for target recogn. and exploitation. *Chellappa, R., + , PROC Jan 97* 120-138
System analysis and design
Defence Department, distributed interactive simul. technol. appl. *Shiflett, J.E., + , PROC Aug 95* 1168-1178
embedded software design tools, real-time sig. proc. systs. *Goossens, G., + , PROC Mar 97* 436-454
hardware/software co-design. *De Michell, G., + , PROC Mar 97* 349-365
hardware/software codesign (special issue). *PROC Mar 97* 347-466
hardware/software codesign, special issue intro. *De Micheli, G., PROC Mar 97* 347-348
reactive real-time embedded syst. design, formal models. *Edwards, S., + , PROC Mar 97* 366-390
warfare modeling and simul., distributed interactive simul. *Davis, P.K., PROC Aug 95* 1138-1155
Systems engineering
book review; Manufacturing Systems Engineering (Gershwin, S.B.; 1994). *Meerkov, S.M., PROC Jul 96* 1051-1052
System software
heterog. computing. *Ekmecic, I., + , PROC Aug 96* 1127-1144

T

Target detection; cf. Radar detection
Target recognition; cf. Radar target recognition
Technological innovation
book review; Managing Innovation and Entrepreneurship in Technology Based Firms (Martin, M.J.C.; 1994). *Pinto, J.K., PROC Nov 96* 1706-1707
book review; Mastering the Dynamics of Innovation: How Companies Can Seize Opportunities in the Face of Technological Change (Utterback, J.M.; 1994). *O'Neill, R.R., PROC Jun 95* 999
book review; Strategic Technology Management (Betz, F.; 1993). *Gaynor, G.H., PROC Mar 96* 500-501
Technology; cf. Microwave technology; Vacuum technology
Technology assessment
mol. electronics, hist., forty yrs. of develop. *Chapin Cutler, C., PROC Jul 97* 1141-1143
Si, cryst. solar cells, low-cost indust. technols. *Szlufcik, J., + , PROC May 97* 711-730
telecomms. and computing technols., convergence. *Messerschmitt, D.G., PROC Aug 96* 1167-1186
Technology forecasting
CMOS scaling for high perform. and low power, next decade. *Davari, B., + , PROC Apr 95* 595-606
digital TV perspectives. *Netravali, A., + , PROC Jun 95* 834-842
distributed interactive simul., future technol. challenges. *Reddy, R., + , PROC Aug 95* 1188-1195
μP, technol. and business. *Tredennick, N., PROC Dec 95* 1641-1652
testbed for twenty-first century. *Henning, I., + , PROC Oct 97* 1572-1581
Technology social factors
automated biometrics (special issue). *PROC Sep 97* 1343-1492
automated biometrics, special issue intro. *Shen, W., + , PROC Sep 97* 1343-1347
book review; High Performance; The Culture and Technology of Drag Racing: 1950-1990 (Post, R.C.; 1994). *Mindell, D.A., PROC Aug 95* 1200-1201
privacy aspects of biometrics. *Woodward, J.D., PROC Sep 97* 1480-1492
Technology transfer
digital video recording. *Umemoto, M., + , PROC Jul 95* 1044-1054
fuzzy logic control, indust. appls. *Bonissone, P.P., + , PROC Mar 95* 450-465
Teleconferencing
distributed multimedia systs., tech. survey. *Li, V.O.K., + , PROC Jul 97* 1063-1108
virtual reality, vision/motion research activities. *Ohzu, H., + , PROC May 96* 782-798
Telegraphy
introduction to "Radio Telegraphy" (classic paper reprint, pp. 1526-1535). *Jabbari, B, PROC Oct 97* 1523-1525
intro. to classic paper by L. de Forest on develops. in telegraphy (classic paper reprint (pp. 327-336). *Delogne, P., PROC Feb 97* 323-326
Lee de Forest, career/contribs. *Brittain, J.E., PROC Mar 97* 476-477
radio telegraphy (reprinted from Proc. IRE, vol. 10, pp. 215-238, Aug. 1922). *Marconi, S.G., PROC Oct 97* 1526-1535
Telephone equipment
trans-Atlantic radio telephony, SSB prod. *Heising, R.A., PROC May 97* 752-761
Telephony
network traffic neural net mgt. *Ambrose, B.E., + , PROC Oct 96* 1421-1429
traffic mgt. by neural nets. *Ambrose, B.E., + , PROC Oct 96* 1421-1429
Terminology
birth of term "microwaves". *Pelosi, G., PROC Feb 96* 326
Thermal factors
metalorganic chemical vapor deposition for optoelectronic devices. *Coleman, J.J., PROC Nov 97* 1715-1729
Thermal factors; cf. Biological thermal factors
Thermionic emission
comments on "The pure electron discharge and its applications in radio telegraphy and telephony" (classic paper reprint, pp. 1496-1508). *Birdsall, C.K., PROC Sep 97* 1493-1495
pure electron discharge and its appls. in radio (reprinted from Proc. of the IRE, vol. 3, no. 3, pp. 261-293, Sept. 1915). *Langmuir, I., PROC Sep 97* 1496-1508
Thermomagnetic recording; cf. Magnetooptic recording
Three-dimensional displays
display of 3D video images. *Travis, A.R.L., PROC Nov 97* 1817-1832
Three-dimensional vision; cf. Stereo vision
Time-division multiplexing; cf. Asynchronous transfer mode; Burst switching; Synchronous digital hierarchy
Time domain analysis
acoustic sigs. charact., continuous lin. time-freq. representation. *Guillemain, P., + , PROC Apr 96* 561-585
automatic speech recogn., time-freq. anal. and auditory modeling. *Pitton, J.W., + , PROC Sep 96* 1199-1215
brain functional activity localization, EEG time-freq. anal. *Mingui Sun, + , PROC Sep 96* 1302-1311
cortical region neuronal oscills., EEG activity time-freq. anal. *Haykin, S., + , PROC Sep 96* 1295-1301
implantable cardioverter defibrillators, detect. algms. *Jenkins, J.M., + , PROC Mar 96* 428-445
internal combustion engine, knock detect., mech. signature anal., time-freq. methods. *Samimy, B., + , PROC Sep 96* 1330-1343

musical sigs., time-freq. anal. *Pielemeier, W.J., + , PROC Sep 96* 1216-1230
postural sway, human bal. control, time-freq. spectral anal. *El-Jaroudi, A., + , PROC Sep 96* 1312-1318
proc. machine monitoring sens., vibr. anal., time-freq. anal. *Atlas, L.E., + , PROC Sep 96* 1319-1329
reduced interf. distribs., biological appls./interps. *Williams, W.J., PROC Sep 96* 1264-1280
sig. anal., time-freq. distribs., sonar and radar echoes appl. *Gaunaurd, G.C., + , PROC Sep 96* 1231-1248
skeletal muscle/cardiac vibrs., time-freq. anal. *Wood, J.C., + , PROC Sep 96* 1281-1294
time-frequency analysis (special issue). *PROC Sep 96* 1195-1343
wavelets and time-freq. anal. *Hess-Nielsen, N., + , PROC Apr 96* 523-540

Time domain measurements
civ. engng. smart structs., distrib. fiber optic technols. *Culshaw, B., + , PROC Jan 96* 78-86

Time series
radar detect. of sigs. in chaos, small target in sea clutter. *Haykin, S., + , PROC Jan 95* 95-122
sig. anal., time-freq. distribs., sonar and radar echoes appl. *Gaunaurd, G.C., + , PROC Sep 96* 1231-1248

Time-varying channels
corrections to "Emerging applications of multirate signal processing and wavelets in digital communications" (Apr 96 586-603). *Wornell, G.W., PROC Aug 96* 1187-1188
digital commun., multirate sig. proc. and wavelets appls. *Wornell, G.W., PROC Apr 96* 586-603

Tissues; cf. Biological tissues

Topology; cf. Circuit topology

Tracking
data fusion (special issue). *PROC Jan 97* 3-183
model-based video coding, develop. *Pearson, D.E., PROC Jun 95* 892-906

Tracking; cf. Optical tracking; Radar tracking; Satellite tracking

Traffic control (communication)
ATM network traffic mgt. by neural net. *Habib, I.W., PROC Oct 96* 1430-1441
packet-switching networks, service disciplines for guaranteed perform. *Hui Zhang, PROC Oct 95* 1374-1396
telephone network traffic neural net mgt. *Ambrose, B.E., + , PROC Oct 96* 1421-1429

Traffic control (transportation); cf. Air traffic control

Training
Defence Department, distributed interactive simul. technol. appl. *Shiflett, J.E., + , PROC Aug 95* 1168-1178
distributed interactive simul., nondefense training/education appls. *Fitzsimmons, E.A., + , PROC Aug 95* 1179-1187
interactive TV, digital actors. *Magnenat Thalmann, N., + , PROC Jul 95* 1022-1031
SIMNET, simulator networking, mil. training. *Miller, D.C., + , PROC Aug 95* 1114-1123

Transceivers
cellular pers. commun., handset antenna/human EM interact. *Jensen, M.A., + , PROC Jan 95* 7-17
low-power RF ICs for portable commun., all-CMOS radio. *Abidi, A.A., PROC Apr 95* 544-569

Transducers; cf. Biomedical transducers; Chemical transducers; Magnetic transducers; Microsensors; Multisensor systems; Optical transducers; Robot sensing systems

Transform coding
digital audio coding for visual commun. *Noll, P., PROC Jun 95* 925-943

Transforms; cf. Discrete transforms; Fourier transforms; Haar transforms; Karhunen-Loeve transforms; Wavelet transforms

Transient analysis
internal combustion engine, knock detect., mech. signature anal., time-freq. methods. *Samimy, B., + , PROC Sep 96* 1330-1343

Transient response
blind syst. ident. techs., review. *Abed-Meraim, K., + , PROC Aug 97* 1310-1322

Transistors
intro. to Shockley's 1952 Proceedings of the IRE paper (classic paper reprint, pp. 2055-2080). *Ning, T.H., PROC Dec 97* 2052-2054
transistor electronics, imperfections, unipolar and analog transistors (reprinted from Proc. IRE, vol. 40, no. 11, pp. 1289-1313, Nov. 1952). *Shockley, W., PROC Dec 97* 2055-2080

Transistors; cf. MESFETs; MISFETs; MODFETs; MOSFETs

Transmitters; cf. Optical transmitters; Radio transmitters

Transmitting antennas
Federal Telegraph Company, commun. equipt. develop. *de Forest, L., PROC Feb 97* 327-336

Transportation; cf. Land transportation

Traveling wave tubes
Rudolf Kompfner, career/contribs. *Brittain, J.E., PROC Feb 97* 340-341

Trees (graphs); cf. Fault trees

Tubes; cf. Electron tubes

Tungsten
William D. Coolidge, contribs. *Brittain, J.E., PROC May 95* 828

Tunnel diodes; cf. Resonant tunneling diodes

Turbines
fuzzy logic control, indust. appls. *Bonissone, P.P., + , PROC Mar 95* 450-465

TV
Allen B. Dumont, career/contribs. *Brittain, J.A., PROC Dec 97* 2081-2082
Harold A. Wheeler, career/contribs. *Brittain, J.A., PROC Jan 97* 200-201

TV; cf. Cable TV; Educational TV; HDTV; Interactive TV; Video signal processing

TV broadcasting
advanced TV systs. for terrestrial broadcasting, problems and solns. *Schreiber, W.F., PROC Jun 95* 958-981
coded orthogonal FDM, TV broadcasting appl. *Le Floch, B., + , PROC Jun 95* 982-996
digital TV broadcasting, cryptology. *Macq, B.M., + , PROC Jun 95* 944-957
digital TV perspectives. *Netravali, A., + , PROC Jun 95* 834-842
Grand Alliance syst. for US HDTV. *Challapali, K., + , PROC Feb 95* 158-174

TV cameras
3D TV research, present status. *Motoki, T., + , PROC Jul 95* 1009-1021
digital TV systs., cameras and display systs. *Hashimoto, Y., + , PROC Jul 95* 1032-1043
iconoscope; modern version of elec. eye (reprinted from Proc. of IRE, vol. 22, no. 1, pp. 16-32, Jan. 1934). *Zworykin, V.K., PROC Aug 97* 1327-1333
intro. to paper by V.K. Zworykin on iconoscope (classic paper reprint, pp. 1327-1333). *Simaan, M.A., PROC Aug 97* 1323-1326

TV displays
3D TV research, present status. *Motoki, T., + , PROC Jul 95* 1009-1021
cameras and display systs., rel., digital TV. *Hashimoto, Y., + , PROC Jul 95* 1032-1043
display of 3D video images . *Travis, A.R.L., PROC Nov 97* 1817-1832
Edward H. Herold, career/contribs. *Brittain, J.E., PROC Nov 97* 1876-1877

TV distortion; cf. TV interference

TV equipment; cf. TV cameras; TV displays

TV imaging
3D TV research, present status. *Motoki, T., + , PROC Jul 95* 1009-1021
opt. scanning holography, tutorial. *Ting-Chung Poon, + , PROC May 96* 753-764

TV interference
advanced TV systs. for terrestrial broadcasting, problems and solns. *Schreiber, W.F., PROC Jun 95* 958-981

TV receivers
advanced TV systs. for terrestrial broadcasting, problems and solns. *Schreiber, W.F., PROC Jun 95* 958-981

Twisted pair cables
telephone loop plant, technol./appls. *Lin, D.W., + , PROC Feb 95* 175-193

U

UHF antennas
cellular pers. commun., handset antenna/human EM interact. *Jensen, M.A., + , PROC Jan 95* 7-17

UHF radio communication
cellular pers. commun., handset antenna/human EM interact. *Jensen, M.A., + , PROC Jan 95* 7-17

Ultra-large-scale integration
low power microelectronics, develop. and prospects. *Meindl, J.D., PROC Apr 95* 619-635

Ultraviolet generation
gallium-nitride-based materials for blue to ultraviolet optoelectronics devices. *DenBaars, S.P., PROC Nov 97* 1740-1749

Uncertain systems
book review; Robust Control: Systems with Uncertain Physical Parameters (Ackermann, J., et al.; 1993). *Mansour, M., PROC Oct 96* 1572

Uncertainty
fingerprint class./ident. by SOFM neural net. *Halici, U., + , PROC Oct 96* 1497-1512
fuzzy logic, reliab. engng. appl. *Bowles, J.B., + , PROC Mar 95* 435-449

Underwater communication cables
long-dist. lightwave telecomms., opt. fiber amps. *Giles, R., + , PROC Jun 96* 870-883

Underwater optical communication
long-dist. lightwave telecomms., opt. fiber amps. *Giles, R., + , PROC Jun 96* 870-883
Underwater vehicles
autonomous vehicles. *Meyrowitz, A.L., + , PROC Aug 96* 1147-1164
User interfaces
book review; Developing Online Help for Windows (Boggan, S., et al.;. *Barker, T.T., PROC Jun 95* 997-998

V

Vacuum technology
molecular beam epitaxy technol. of III-V compound semiconds. for optoelectronic appls. *Cheng, K.-Y., PROC Nov 97* 1694-1714
Van Valkenburg, Mac Elwyn
obituary. *Trick, T.N., PROC Nov 97* 1675-1677
Vapor deposition
nanostructure fab., electron beam techs. *Matsui, S., PROC Apr 97* 629-643
Vapor deposition; cf. CVD
Variable rate codes
model-based video coding, develop. *Pearson, D.E., PROC Jun 95* 892-906
Vector quantization
image compression, neural network approaches. *Dony, R.D., + , PROC Feb 95* 288-303
image/video compression. *Weiping Li, + , PROC Feb 95* 317-335
nonlin. vector predictor, neural net approach. *Rizvi, S.A., + , PROC Oct 96* 1513-1528
portable video-on-demand syst. in wireless commun. *Meng, T.H., + , PROC Apr 95* 659-680
Vehicles; cf. Land vehicles
Velocity control
dyn. neural net for vehicle idle speed control. *Puskorius, G.V., + , PROC Oct 96* 1407-1420
Very-large-scale integration
analog archit., motion proc. *Sarpeshkar, R., + , PROC Jul 96* 969-987
book review; Analog VLSI Implementation of Neural Systems (Mead, C., and Ismail, M., Eds.; 1989). *Andreou, A.G., PROC Oct 95* 1430-1431
book review; Hot-Carrier Reliability of MOS VLSI Circuits (Leblebici, Y., and Kang, S.-M.; 1993). *Kwark, Y.H., PROC Mar 95* 486-487
CMOS scaling into nanometer regime, fund. phys. effects, practicality. *Yuan Taur, + , PROC Apr 97* 486-504
CMOS VLSI archits. for video compression, survey. *Pirsch, P., + , PROC Feb 95* 220-246
HDTV, digital, VLSI appl. *Mlynek, D.J., + , PROC Jul 95* 1055-1070
JAGUAR, pipelined VLSI archit. for JPEG image compression. *Kovac, M., + , PROC Feb 95* 247-258
modular massively parallel computing approach, image-related proc. *Krikelis, A., + , PROC Jul 96* 988-1004
Vibrations
laser satellite commun. network, vibr. effect and solns. *Arnon, S., + , PROC Oct 97* 1646-1661
Video coding
compression algms., mean field annealing recovery techs. *Ozcelik, T., + , PROC Feb 95* 304-316
model-based video coding techs. for low bit-rate appl. *Aizawa, K., + , PROC Feb 95* 259-271
Videophone systems
embedded software in real-time sig. proc., telecom appl. *Paulin, P.G., + , PROC Mar 97* 419-435
telephone loop plant, technol./appls. *Lin, D.W., + , PROC Feb 95* 175-193
Video recording
digital video recording. *Umemoto, M., + , PROC Jul 95* 1044-1054
Video signal processing
advances in image and video compression (special issue). *PROC Feb 95* 135-335
digital TV perspectives. *Netravali, A., + , PROC Jun 95* 834-842
digital video coding stds., video commun. role. *Schafer, R., + , PROC Jun 95* 907-924
digital video recording. *Umemoto, M., + , PROC Jul 95* 1044-1054
HDTV digital systs., stds., proc. and coding. *Ninomiya, Y., PROC Jul 95* 1086-1093
HDTV Grand Alliance syst. *Petajan, E., PROC Jul 95* 1094-1105
low bit rate video compression by neural net. *Cramer, C., + , PROC Oct 96* 1529-1543
model-based video coding, develop. *Pearson, D.E., PROC Jun 95* 892-906
motion estim. techs. for digital TV, review. *Dufaux, F., + , PROC Jun 95* 858-876
portable video-on-demand syst. in wireless commun. *Meng, T.H., + , PROC Apr 95* 659-680
real-time proc., P^3I parallel archit. *Colaitis, M.-J., + , PROC Jul 96* 1019-1037
region-based video coding, math. morph. *Salembier, P., + , PROC Jun 95* 843-857
very low bit rate video coding, trends. *Ebrahimi, T., + , PROC Jun 95* 877-891
Virtual computers
CoWare hardware-software codesign tool for digital telecom systs. *Bolsens, I., + , PROC Mar 97* 391-418
Stanford FLASH multiprocessor, hardware/software co-design. *Heinrich, M., + , PROC Mar 97* 455-466
Virtual reality
book review; Virtual Reality Technology (Burdea, G., and Coiffet, P; 1994). *Akay, M., PROC Sep 95* 1294
vision/motion research activities. *Ohzu, H., + , PROC May 96* 782-798
Vision systems (nonbiological); cf. Machine vision
Visualization
self-organizing map, props., engng. appls. *Kohonen, T., + , PROC Oct 96* 1358-1384
Visualization; cf. Scientific visualization
Visual languages
dataflow proc. networks. *Lee, E.A., + , PROC May 95* 773-801
Visual system
iris recogn. *Wildes, R.P., PROC Sep 97* 1348-1363
postural sway, human bal. control, time-freq. spectral anal. *El-Jaroudi, A., + , PROC Sep 96* 1312-1318
virtual reality, vision/motion research activities. *Ohzu, H., + , PROC May 96* 782-798
wavelets in biomedical appls. review. *Unser, M., + , PROC Apr 96* 626-638
VLSI; cf. Very-large-scale integration
Voltage control
power syst. voltage instabil., mechanisms and control strategies. *Vu, K.T., + , PROC Nov 95* 1442-1455

W

Waveform analysis; cf. Spectral analysis
Waveguide antennas
corrections to "Precision DSN radiometer systems: impact on microwave calibrations" (May 94 776-787). *Stelzried, C.T., + , PROC Aug 96* 1187
corrections to "The fractional frequency stability of a 34-m-diameter beam waveguide antenna" (May 94 788-795). *Otoshi, T.Y., P PROC Aug 96* 1187
Waveguides; cf. Beam waveguides
Wavelength division multiplexing
fiber-optic networks, opt. components, review. *Borella, M.S., + , PROC Aug 97* 1274-1307
long-dist. lightwave telecomms., opt. fiber amps. *Giles, R., + , PROC Jun 96* 870-883
opt. fibers and amps. for WDM systs. *Yadlowsky, M.J., + , PROC Nov 97* 1765-1779
Wavelet transforms
biomedical appls., review. *Unser, M., + , PROC Apr 96* 626-638
computer graphics appls. *Schroder, P., PROC Apr 96* 615-625
computer vision research. *Mallat, S., PROC Apr 96* 604-614
corrections to "Emerging applications of multirate signal processing and wavelets in digital communications" (Apr 96 586-603). *Wornell, G.W., PROC Aug 96* 1187-1188
correction to "Wavelets in computer graphics" (Apr 96 615-625). *Schroder, P., PROC Aug 96* 1188
digital commun., multirate sig. proc. and wavelets appls. *Wornell, G.W., PROC Apr 96* 586-603
galaxy clustering, image proc. *Bijaoui, A., + , PROC Apr 96* 670-679
historical roots. *Daubechies, I., PROC Apr 96* 510-513
math. background of wavelet transforms. *Cohen, A., + , PROC Apr 96* 514-522
musical sigs., time-freq. anal. *Pielemeier, W.J., + , PROC Sep 96* 1216-1230
nuc. med. image restoration by neural net. *Wei Qian, + , PROC Oct 96* 1458-1473
optics research, wavelet proc. *Yao Li, + , PROC May 96* 720-732
opt. pattern recogn. archits./techs. *Yu, F.T.S., + , PROC May 96* 733-752
research directions. *Sweldens, W., PROC Apr 96* 680-685
sig. decomp., wavelets and time-freq. anal. *Hess-Nielsen, N., + , PROC Apr 96* 523-540
sig. proc., wavelets, subband coding, and best bases. *Ramchandran, K., + , PROC Apr 96* 541-560
turbulent flows anal. *Farge, M., + , PROC Apr 96* 639-669
wavelets (special issue). *PROC Apr 96* 507-685
Wigner distributions
musical sigs., time-freq. anal. *Pielemeier, W.J., + , PROC Sep 96* 1216-1230

reduced interf. distribs., biological appls./interps. *Williams, W.J., PROC Sep 96* 1264-1280
sig. anal., time-freq. distribs., sonar and radar echoes appl. *Gaunaurd, G.C., + , PROC Sep 96* 1231-1248
Wind
coherent laser radar in Europe, ground-based and airborne systs. *Vaughan, J.M., + , PROC Feb 96* 205-226
rem. sens. of vel., coherent lidar systs. *Huffaker, R.M., + , PROC Feb 96* 181-204
Wire antennas
intro. to classic paper by M.I. Pupin on antenna radiation resistance meas. (classic paper reprint, pp. 306-310). *Collin, R.E., PROC Feb 97* 301-305
vert. wire antennas, develop. *Pickard, G.W., PROC Nov 96* 1617-1622
Wire communication; cf. Optical fiber communication
Wire communication cables; cf. Underwater communication cables
Wireless LAN
embedded software in real-time sig. proc., telecom appl. *Paulin, P.G., + , PROC Mar 97* 419-435
IR wireless high-speed short-range digital commun. *Kahn, J.M., + , PROC Feb 97* 265-298
Wiring; cf. Integrated circuit interconnections

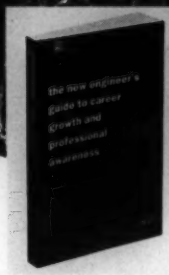
X

X-ray lithography
nanolithography. *Cerrina, F., PROC Apr 97* 644-651
X-ray tomography
radiologic image compression, review. *Wong, S., + , PROC Feb 95* 194-219
wavelets in biomedical appls. review. *Unser, M., + , PROC Apr 96* 626-638

Y

Yagi-Uda arrays
beam transmission of ultra short waves (reprinted from Proc. IRE, vol. 16, pp. 715-741, June 1928). *Yagi, H., PROC Nov 97* 1864-1874
develop. of Yagi-Uda arrays. *Brittain, J.E., PROC May 97* 800-801
intro. to paper on beam transmission of ultra short waves, by H. Yagi (classic paper reprint, pp. 1864-1874). *Pozar, D.M., PROC Nov 97* 1857-1863

A MUST-READ FOR ALL STUDENTS OF ENGINEERING, NEW ENGINEERS, AND EXPERIENCED ENGINEERS!



READER OPINION CARD SELECTION!

THE NEW ENGINEER'S GUIDE TO CAREER GROWTH AND PROFESSIONAL AWARENESS

edited by Irving J. Gabelman

Intent on solving the ever-emerging problems created by the requirements of society and advancing technology, today's engineers may lose sight of the important professional, governmental, and community-based activities that can profoundly affect the outcome of their careers. This comprehensive introductory text helps illuminate the many socio-economic issues that are an integral part of the engineer's life from college to career to retirement.

Key topics include:

- ◆Employment of new engineers and the factors that will influence their choice of careers
- ◆Job market strategies for engineers
- ◆Legal aspects of employment, intellectual properties, and licensing and registration
- ◆Ethical conduct by engineers relating to employers, society, the engineering community, and clients
- ◆Interaction of government with the engineering community
- ◆Planning for retirement years
- ◆And many career tips you won't learn in technical courses!

LIST OF CONTRIBUTORS (in alphabetical order):
Richard Backe, Program Director, Unisys Corporation, Lanham, MD; Ruth Barwick, Executive Assistant to the President, Utica College of Syracuse University; Chris J. Brantley, Senior Administrator, IEEE-USA Washington, D.C.; Irving J. Gabelman (Editor), USAF (Ret.), Chief Scientist, Rome Laboratory, Rome, NY; John J. Guerrara, Professor of Electrical Engineering, California State University at Northridge; Deborah G. Johnson, Professor of Philosophy, RPI, Troy, NY; Orin Laney, President, Avocado Computer Co., Silver Springs, MD; Larry P. Malfitano, Attorney and Partner, Bond, Schoeneck & King, Syracuse, NY; George F. McClure, Technical Director (Ret.), Martin Marietta Electronic Systems, Orlando, FL; Robert W. McClure, Vice President of Engineering, CONDUX, Inc.; Charles C. Olsefsky, Professor of Engineering, California State University at Northridge; Marlin P. Ristenbatt, Research Engineer, EE Dept., University of Michigan, Ann Arbor, MI; Howard L. Rose, Patent Attorney, Bethesda, MD; Richard A. Schwartz, Manager Metering Services, PP&L, Hazleton, PA; Richard G. Weingardt, President, Richard Weingardt Consultants, Inc., Denver, CO

1996/Softcover/296pp
List Price: $39.95
Member Price: $34.00
IEEE Order No. PP4119-QBZ
ISBN 0-7803-1057-8

TO HELP US SERVE YOU, PLEASE HAVE YOUR IEEE MEMBER / CUSTOMER NUMBER READY WHEN YOU CALL.

FOR FAST SERVICE CALL TOLL-FREE 1(800)678-IEEE

OUTSIDE THE USA, CALL 1(908)981-0060 OR FAX 1(908)981-9667

e-mail: customer.service@ieee.org

24 HOURS A DAY 7 DAYS A WEEK!

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC. 445 HOES LANE, PO BOX 1331, PISCATAWAY, NJ 08855-1331 USA

KNOWLEDGE IS MORE THAN POWER

Subscribe Today and Receive 12 Issues for Just $23.00!

SHARE *THIS KNOWLEDGE* WITH A FRIEND!

IEEE Member Price: $23.00 *(List Price: $375.00)*
Subscription Order No. 500-501
Call: 1 (800) 678-IEEE or 1 (732) 981-0060 Fax: 1 (732) 981-9667
Email: *customer.service@ieee.org*

IEEE
Networking the World™